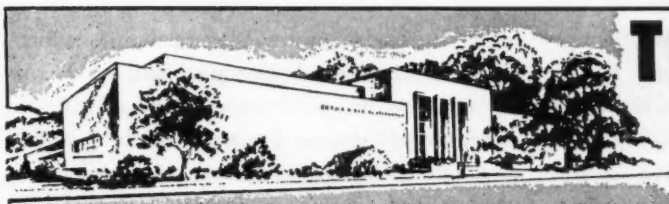

TEXAS State Journal of Medicine

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ANNUAL OFFICERS' MEETING BROADENED

New officers will be elected by the majority of the county medical societies in Texas next month, and the Texas Medical Association is wasting no time before giving these local leaders an opportunity to air their problems and to learn about their state and national medical organizations. The fourth annual County Medical Society Presidents' and Secretaries' Meeting, to be held Saturday, January 22, at the headquarters building in Austin, has been broadened to include delegates and public relations and legislative committee chairmen. Invitations also are being extended to members of all councils and committees of the Texas Medical Association.

The program will consist of a general session with special sessions on legislation and on medical economics and public relations. Although the plans are not definite, tentative arrangements include a number of brief talks by physicians and laymen, bringing in the non-scientific phases of medical practice, from combating public criticism to what happens to the dues dollar. Of particular interest to delegates will be an account of the issues pending before the House of Delegates. County society secretaries may have many of their questions answered in a discussion on dues, records, and other business matters. A buffet luncheon also is on the agenda.

It is expected that at least two noted out-of-state speakers will take part in the day-long program, which will precede the Executive Council meeting on Sunday, January 23, and probably three guests will come to Texas for the activities. Others on the program will be officials of the Texas Medical Association, including Dr. F. J. L. Blasingame, Dr. Milford O. Rouse, Dr. Hobart O. Deaton, Dr. Robert W. Kimbro, Dr. R. G. Baker, Dr. May Owen, and Dr. William M. Crawford, together with C. Lincoln Williston of the central office staff.

In the field of legislation on the county society level, two panel discussions will be held simultaneously for smaller and larger societies, with Dr. J. W. Rainer and Dr. J. R. Donald-

son as moderators. Dr. C. S. E. Touzel, president of the Tarrant County Medical Society for 1955, will extend a welcome to the 1955 annual session in Fort Worth, mentioning some of the special events being planned.

A successful meeting depends on the cooperation of each county medical society, both large and small, in reporting new officers and committee chairmen immediately upon their election and/or appointment and in urging them to attend. The Presidents' and Secretaries' Meetings in the past have been considered by county and state officers alike as one of the most effective programs ever attempted.

The 1955 session has been planned to help more society leaders—the presidents, secretaries, delegates, public relations chairmen, and the legislative chairmen—meet the problems and answer the questions that are likely to arise during their year in office. If these men take advantage of the January 22 program, a stronger medical organization on all levels could result.

REFRESHER COURSES IN FORT WORTH

A brand new feature has been added to the 1955 Texas Medical Association annual session, which will be held in Fort Worth, April 24-27. Approximately twenty-four refresher courses on subjects important in everyday practice are being arranged with eight scheduled to run simultaneously each morning Monday through Wednesday from 8:15 until 9:45 o'clock. This time has been set aside especially for refresher courses so that each physician will be free to take part in three courses without missing other programs.

Registration for the courses, which will be limited to about fifty physicians each, will be completed prior to the meeting; details will be announced later. There will be no charge.

Given by a guest faculty of outstanding speakers from all over the United States, the courses will be divided into an hour of instruction followed by a thirty minute question and answer period. Informal credit hours, which must be reported beginning January 1 for maintenance of good standing in the Texas Academy of General Practice, will be granted by the Academy for attendance at the scientific sessions including the refresher courses.

Eminent representatives from all medical fields will come to Fort Worth in April to give the refresher courses, talk before general meetings, or participate in section or related specialty organization programs. Most will speak several times. The following is a list of speakers who have accepted invitations:

Dr. Frank N. Allan, Boston, Executive Director of Medical Department, Lahey Clinic.

Dr. John A. Anderson, San Francisco, Professor and Head of Department of Pediatrics, Stanford University School of Medicine.

Dr. William H. Bickel, Rochester, Minn., Associate Professor of Orthopedic Surgery, Mayo Foundation.

Dr. Francis J. Braceland, Hartford, Conn., Clinical Professor of Psychiatry, Yale University.

Dr. Walter A. Fansler, Minneapolis, Clinical Professor of Surgery and Head of Division of Proctology, University of Minnesota.

Dr. Russell S. Fisher, Baltimore, Chief Medical Examiner of the State of Maryland.

Dr. Norman E. Freeman, San Francisco, Associate Clinical Professor of Surgery, University of California.

Dr. Douglas M. Kelley, Berkeley, Professor of Criminology, University of California.

Dr. William J. Kerr, San Francisco, former Professor of Medicine and Chairman of Division of Medicine, University of California.

Dr. Clair M. Kos, Iowa City, Professor of Otolaryngology and Maxillofacial Surgery, State University of Iowa.

Dr. Hugh R. Leavell, Boston, Professor of Public Health Practice, Harvard University School of Public Health.

Dr. C. Ferd Lehmann, San Antonio, Practicing Dermatologist and Consultant, Brooke Army Hospital.

Dr. Nicholas C. Leone, Bethesda, Md., Staff Member of the National Institute of Dental Research, National Institute of Health.

Dr. Frank R. Lock, Winston-Salem, N. C., Professor of Obstetrics and Gynecology, Bowman Gray School of Medicine, Wake Forest College.

Dr. John S. Lundy, Rochester, Minn., Professor of Anesthesiology, Mayo Foundation.

Dr. Walter B. Martin, Norfolk, Va., President of the American Medical Association.

Dr. Alton Ochsner, New Orleans, Chairman of Department of Surgery, Tulane University of Louisiana School of Medicine.

Dr. Lester W. Paul, Madison, Professor of Radiology, University of Wisconsin.

Dr. Robert L. Sanders, Memphis, Tenn., Senior Surgeon, Baptist Memorial Hospital.

Dr. Lucian A. Smith, Rochester, Minn., Member of Division of Internal Medicine, Mayo Clinic.

Dr. Phillips Thygeson, San Jose, Clinical Professor of Ophthalmology, University of California.

In addition to the refresher courses to be conducted by the guests, a course on "Athletic Injuries" will be given by Dr. Edward T. Smith, Houston, team physician for the Rice Institute Owls; Jess Neely, athletic director and head football coach at Rice; and Eddie Wojecki, trainer for the Owls.

Every physician who is absent from the 1955 annual session will miss a scientific program which has been redesigned this year with him in mind. Whether a doctor is a general practitioner or a specialist, there will be refresher course and general meeting subjects, as well as topics of more restricted appeal, to interest him. Furthermore, the special guests have been invited to be in Fort Worth during the entire session so that more Texas doctors will have an opportunity to meet and talk with them about individual problems.

Now is the time to mark the calendar so that the meeting in Fort Worth will not be missed.

NEW OFFICIAL NAMED

A new helmsman has taken the wheel at the central office of the Texas Medical Association, and members of the Association can do much to assure him steady winds and a willing crew to keep the organization on its course. C. Lincoln Williston, who came from Illinois last April as assistant executive secretary, was elevated to the executive secretaryship November 1 following the resignation of N. C. Forrester. Mr. Forrester left the Association after serving on the staff since June, 1950.

Because of the county medical society visitation program which Mr. Williston has activated in recent months, many Texas doctors and their wives already know him. It is the hope of the Board of Trustees, which named him to his new post, that every member of the Association soon will know Mr. Williston and will cooperate with him in achieving the organization's goals.

CURRENT EDITORIAL COMMENT

HELPING PATIENTS TO BUY ACCIDENT AND HEALTH INSURANCE

Doctors often are called upon to advise on problems which are not strictly medical, including this or that health insurance plan. Doctors are not inclined to praise or condemn any specific insurance company or plan. Yet, in some situations a plea for advice may be strong enough to offset a doctor's natural hesitancy. What then can a doctor say to his friends or patients in terms that will be most helpful? Here are some pointers:

Study present insurance coverage. If the person has insurance where he works or through another organization, he should find out how much and for what. Group insurance is usually the broadest and cheapest protection available. However, it is often not enough or the patient may not be a member of such an insurance-providing group.

Figure out what is needed. A family head needs insurance as replacement for at least half of his take-home income to meet current living expenses while he is laid up. A doctor can be helpful by explaining the general level of local hospital room rates, the charge for professional calls, and some of the more common surgical procedures. He should caution the person to budget about 3 per cent of his annual net income for other health costs which insurance does not or cannot cover.

Look at the types of policies available. Protection can be bought for either accident or sickness separately, but it is a good idea to get both either in a combination policy or in two separate policies.

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and others closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions preferably should be between 300 and 500 words in length.*

Loss of income policies pay weekly or monthly benefits when a person cannot work at his job, or any job, or both—whichever benefits are desired and for which the individual is willing to pay. The loss of income policy also pays lump sum death or loss of limb benefits. Noncancellable policies cost substantially more than those that can be cancelled by the insurance company. However, a 1952 survey shows that nationally only .4 per cent of the cancellable policies then in force were cancelled by companies.

Hospital insurance pays a certain daily amount for room and board and another amount for extras. The extras are important, for they can often account for a major portion of the hospital bill. Pregnancy is often covered under hospitalization policies, but usually there is a nine month waiting period before eligibility for benefits. A deductible feature in some hospital policies—as in automobile collision insurance—will save money on premiums.

Surgical insurance pays a maximum amount for operations listed in a "schedule." Provision is usually made for operations not listed to be paid according to their comparative difficulty up to a maximum of the schedule.

Medical insurance pays for doctor calls at home or in the hospital, usually when no surgery is involved or when a patient comes to the doctor's office.

Major medical expense insurance helps pay the catastrophic accident or sickness costs. Top limits usually run from $2,500 to $10,000. Often there is a deductible clause on the first $500, but expenses within that amount may be met substantially by the regular hospital-medical-surgical coverages. On the remainder of the bill, most policies pay 75 per cent. The patient pays the rest.

Decide from whom to buy. An insurance company representative who is well regarded in the community should be consulted. If a person wishes to do so, he may get the views of policyholders who have recently received insurance benefits.

Know the policy. An insurance buyer should understand completely what a given policy provides before deciding to buy it. The questions he should ask about a policy will be pointed out in the fourth and last article in this series.

HEALTH INSURANCE COUNCIL,
Chicago, Illinois.

208 South LaSalle Street.

This is the third in a series of articles prepared at the request of the Hospital-Insurance-Physicians Joint Advisory Committee of Texas. The first two, explaining income insurance for doctors and some ABC's of health insurance, appear in the September and October issues of the JOURNAL, *respectively.*

OPEN-CHANNEL TV USED FOR CLINIC

A successful experiment in the use of open-channel television for postgraduate medical education conducted by the Division of Graduate and Postgraduate Medical Education of the University of Utah has been reported by Dr. Robert S. Warner and Dr. John Z. Bowers in the October issue of the *Journal of Medical Education.*

Choosing 7 to 8 a. m. as an hour convenient for most doctors and one free from commercial television interference, the university telecast four clinics which reached an audience area including 75 per cent of the practicing physicians in Utah.

The clinics were televised weekly for four weeks and covered roentgen-ray diagnosis of calcifications in the abdomen, gastrointestinal hemorrhage in the elderly patient, the approach to congenital heart disease, and a diagnostic clinic. Physicians in the reception area were given the number of an unlisted telephone installed at the site of the telecast and were urged to place questions by collect calls.

The authors report that a survey indicated 48.9 per cent of the potential doctor audience viewed the telecasts, with 74 per cent of the viewers stating they learned new facts. Sixty-one per cent felt that their "previous knowledge had been revitalized," and 53 per cent indicated renewed interest in a specific field.

A questionnaire revealed that 46.7 per cent of all physicians interviewed thought that televised clinics were the best means of gaining new information. Drs. Warner and Bowers emphasized that rural practitioners, in particular, could benefit from this type of presentation.

ACCIDENTAL DEATHS

Heart disease and cancer are the only diseases causing more deaths than accidents among American men in the ages of 15 through 64 years, according to statisticians of the Metropolitan Life Insurance Company.

The three leading causes of accidental death—motor vehicles, falls, and drownings in that order—were responsible for about seven out of every ten accidental deaths in this insured group, and a large part of the remaining mortality was due to burns, firearms, and poisoning.

The reduction in mortality among men between 15 and 64 has amounted to about one third over the past twenty years.

ORIGINAL ARTICLES

CLINICAL EVALUATION OF RADIOACTIVE IODINE(I^{131}) AS A DIAGNOSTIC AND THERAPEUTIC AGENT

RALPH S. CLAYTON, SR., M. D., Dallas, Texas

RADIOACTIVE iodine (I^{131}), the eight day half-life radioactive isotope of iodine, has been in large-scale use in research and in clinical medicine only since 1946. Prior to that time, small-scale studies with this and other short-lived isotopes had been reported.[9, 10]

This paper is concerned with the current status of I^{131} in clinical medicine only.

It is important to recognize that procedures employing this isotope are still in the process of development and differ in many details among various laboratories; therefore only broad concepts can be described. Generally, I shall outline the principles involved in and the indications and contraindications for the use of I^{131} at present. Furthermore, since by far the widest use of this isotope is in the diagnosis and treatment of thyroid disease, this paper is concerned mostly with its use in this field.

PROPERTIES OF I^{131}

These properties of I^{131} are responsible for its usefulness in clinical medicine: (1) its metabolism is identical to that of stable iodine and therefore is well known; (2) the quantities of I^{131} which provide sufficient radioactivity for diagnosis and therapy are nontoxic to the patient; (3) the physical half-life of eight days is relatively short, and on the basis of no excretion of the isotope, 87.5 per cent of its radiation is delivered in twenty-four days; (4) the half-life is long enough to permit deliberate preparation, assay, shipment, storage, and administration without excessive losses; (5) radiation from I^{131} is biologically highly effective, yet it is easily shielded for safe handling; (6) the gamma ray emission permits in vivo measurements by instruments outside the patient; (7) the cost of the I^{131} and equipment for its measurement are reasonable; and (8) the eight day half-life makes laboratory contamination much less of a problem than with substances of longer half-lives such as radioactive cobalt (Co^{60}).

DIAGNOSIS OF THYROID DISEASE

Tracer studies should be considered only as supplementary to older, more established tests of thyroid function. They should not replace any of these tests nor any part of an adequate clinical study. Thorough clinical study and follow-up are just as essential to the successful management of thyroid conditions with I^{131} as they were before its discovery. I^{131} studies are not indicated in the vast majority of cases of thyrotoxicosis where there is no doubt of the diagnosis. Their greatest value is in diagnostic problems, especially in suspected hyperthyroidism or hypothyroidism, suspected carcinoma of the thyroid, and vague clinical syndromes. Uptake studies always should be done before therapy with I^{131} for any reason.

When other evidence of thyroid function is equivocal, I^{131} data are usually definitive; rarely are both equivocal in the same patient. Tracer studies on patients with nonspecific signs and symptoms have revealed positive evidence of hyperthyroidism and hypothyroidism.[15] The full potentialities of I^{131} in this regard have not been determined fully.

I^{131} diagnostic tracer techniques involve the determination of one or more of several aspects of thyroid metabolism:

1. I^{131} uptake by the thyroid—total uptake, with or without the rate of accumulation by the gland, at twenty-four to thirty-six hours, as percentage of a tracer dose.

2. I^{131} renal excretion—total excretion, with or without the rate of excretion, at forty-eight to seventy-two hours, as percentage of a tracer dose.

3. Distribution of I^{131} within the thyroid and in other organs and tissues, with or without the rates of uptake and loss from each area.

4. Rate of plasma clearance of I^{131} related to the thyroid accumulation rate.

From the Department of Radiology of Parkland Memorial Hospital and of Southwestern Medical School of the University of Texas.

Read before Section A (Medical), Texas Medical Association, Annual Session, San Antonio, May 4, 1954.

5. Plasma I^{131} levels as an indication of the rate of conversion of iodine to thyroxine.

Figure 1 is a schematic representation of thyroid uptake curves in hyperthyroid, euthyroid, and hypothyroid states and in functioning thyroid carcinoma. The thyroid function curves overlap in a small percentage of cases. Total thyroid uptake values at twenty-four hours are about 75 per cent plus or minus 15 per cent in hyperthyroidism, 25 per cent plus or minus 15 per cent in euthyroidism, and 5 per cent plus or minus 5 per cent in hypothyroidism. The hyperfunctioning gland takes up more iodine more rapidly and loses it faster than the normal. Hypofunctioning

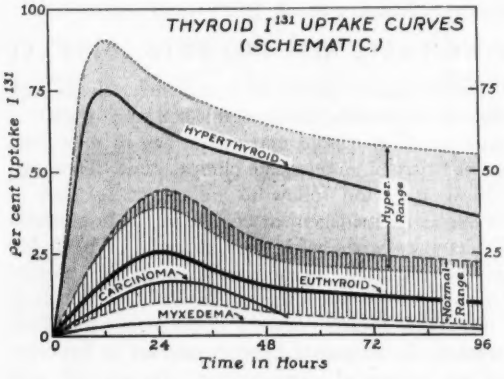

FIG. 1. Graph shows a schematic representation of thyroid I^{131} uptake curves in hyperthyroid, euthyroid, and myxedema states and in functioning thyroid carcinoma.

glands take up less iodine more slowly and lose it slower than normal. Thyroid carcinoma of functioning type always takes up less than normal thyroid tissue and loses it at the most rapid rate of all.

Figure 2 is a schematic representation of renal excretion curves in hyperthyroid, euthyroid, and hypothyroid states and in functioning thyroid carcinoma. Except for a 10 to 15 per cent insensible loss through perspiration and the intestinal tract and in tissue reservoirs, all iodine not taken up by the thyroid is promptly excreted by the kidneys. Measurement of excretion is an accurate indirect method of determining thyroid intake.

Discussion of the relative accuracy and difficulty of these tests is not within the scope of this paper. The tests commonly used today in declining order of frequency are total thyroid uptake, total urinary excretion and rate of excretion, thyroid uptake rate, and others.

Mapping the distribution of the radioiodine and observing the rates of accumulation and loss in each area may be highly informative. Reynolds, Corrigan, and Hayden[14, 15] have reported an amazing success with the skin contact scanning technique in detecting unsuspected thyroid carcinoma and in the differential diagnosis of cervical and mediastinal masses. Toxic and nontoxic nodules, extensions of thyroid tissue into the retrotracheal region and anterior and posterior mediastinum, and residual masses of thyroid tissue after thyroidectomy have been shown beautifully by this method. Furthermore, accurate estimates of the volume of functioning thyroid tissue are possible by the distance scintillation counter, linear scanning technique of Goodwin and others.[2, 8] However, the equipment for this procedure is expensive at present.

The technique now used at Parkland Memorial Hospital, Dallas, is to measure total thyroid uptake at twenty-four hours, with determination of the effective half-life when I^{131} therapy is contemplated. Corrections are made for effective depth of the thyroid, background radiation, and Geiger tube resolving time counting losses.[16] We have begun to employ the skin-contact mapping technique and thyroid uptake rate determination but have had too little experience at this time to warrant comment.

The uptake of I^{131} by the thyroid may be seriously altered by many factors. Iodine in therapeutic doses

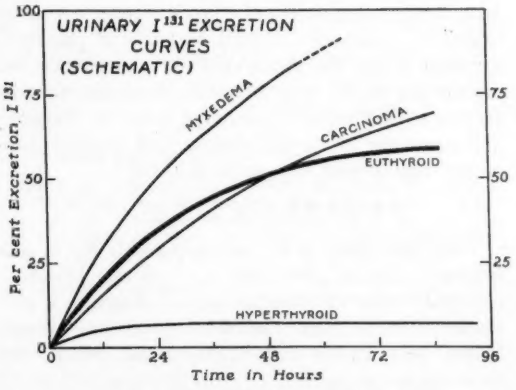

FIG. 2. A schematic representation of renal I^{131} excretion curves in hyperthyroid, euthyroid, and myxedema states and in functioning thyroid carcinoma is given in the graph.

saturates the thyroid so that uptake is deceptively low. Thiouracil and its derivatives block the conversion of diiodotyrosine to thyroglobulin, thus reducing uptake. Desiccated thyroid, by inhibiting the production of thyrotropic hormone from the pituitary gland, results in the most severe depression of I^{131} uptake of all these factors. Some of the influences which tend to decrease uptake and the approximate periods during which their effects on uptake may persist are listed in table 1.

Any unexpectedly low uptake should suggest the possibility of thyroid block. Antithyroid drugs or

iodine should be discontinued at least one to two weeks, longer if possible, before diagnostic or therapeutic doses of I^{131} are given. Desiccated thyroid should be stopped three months before tracer studies if at all possible. Careful history should be taken to exclude other influencing agents.

Thyroid uptake tends to be deceptively high in the presence of impaired renal function, cardiac edema, or thyroid hypertrophy following prolonged antithyroid therapy. In cardiac edema, occult or detectable, and in renal diseases, the increased extracellular fluid acts as a reservoir which can hold considerable iodide.

TABLE 1.—*Influences Which Tend to Decrease Thyroid Uptake and Approximate Duration of Each.*

	Duration
Stable iodine (therapeutic, dietary, vitamin preparations, and the like)	1 to 4 weeks
Radiographic contrast media	
Diodrast	2 to 7 days
Gallbladder dyes	1 to 3 months
Lipiodol and Pantopaque	months to years
Antithyroid drugs	1 to 2 weeks
Desiccated thyroid	2 to 4 months
Thyroiditis	weeks to months or no effect
Previous irradiation with I^{131}	months to years or no effect

This results in a longer exposure of the thyroid to higher values of circulating iodine, thereby increasing the total amount taken up.

TREATMENT OF THYROTOXICOSIS

Radioisotope therapy is attended by mild morbidity. Except for one or two isolated reports of death from a thyroid crisis a few days after a therapeutic dose, there is no mortality. The one significant complication is permanent hypofunction of the thyroid requiring replacement therapy. From 6 to 12 per cent of patients show evidence of hypothyroidism one to three years after treatment. The proportion of cases showing permanent hypofunction probably will be less than this figure. This incidence possibly may be reduced by divided dose treatment regimens now under evaluation in many centers.

My experience with cases seen in three radioisotope laboratories in and near Dallas has paralleled that contained in the current literature. Though I was unable to make a detailed study of results of all cases treated in the time available, the response to treatment has been satisfactory, with few cases requiring any replacement therapy for hypothyroidism.

Practically all patients with hyperthyroidism can be rendered clinically euthyroid if careful follow-up is done and supplemental doses of I^{131} are given as indicated.

The objective in treating thyrotoxicosis is to render the patient euthyroid. It appeared logical at first to calculate therapeutic dosage on the basis of gland size, percentage uptake, effective half-life, severity and duration of symptoms, and the age of the patient.[11] Experience to date, however, reveals poor correlation between the response to treatment and calculated dosage.[12, 17] There is a growing tendency to give a standard initial dose of 3 or 4 millicuries and to give small supplementary doses as required. Data concerning any improvement in results by this method of management are not yet available.

Until they are proved to be unnecessary, I shall continue to take certain factors into account in making decisions on dosage to assist in evaluating results and as a matter of principle in teaching. These factors are (1) percentage uptake of I^{131} by the thyroid at twenty-four hours; (2) effective half-life of I^{131} in the thyroid; (3) estimated weight of the thyroid gland; (4) duration and severity of symptoms; (5) age of the patient; and (6) response to previous I^{131} treatment.

Treatment with either Lugol's solution or antithyroid drugs may be initiated three to seven days after the therapeutic dose, if indicated, to control symptoms until effects of the radiation are manifest two to four weeks later. This is particularly important in patients showing evidence of rapidly increasing severity of symptoms and if there is any possibility of thyroid crisis.

Diffuse Toxic or Exophthalmic Goiter.—I^{131} is rapidly replacing surgery in the treatment of diffuse toxic or exophthalmic goiter where the isotope is available. Most investigators at present prefer to avoid treatment of patients under 25 years of age because the question of carcinogenesis[4] or genetic[13] effects of I^{131} irradiation has not been resolved, but young patients are treated when surgery is contraindicated or is refused. Unless evidence of carcinogenesis or adverse genetic effects is demonstrated soon, I^{131} is likely to replace surgery as the treatment of choice for toxic diffuse goiter at all ages.

Nodular Toxic Goiter.—Surgery is the treatment of choice for nodular toxic goiter. The short range (2.2 mm.) of the beta particles makes them relatively ineffective in reducing the size of nonfunctioning nodules. Larger doses are required, and the risk of hypothyroidism is perhaps greater than in diffuse goiter. However, if surgery is contraindicated because of coexisting disease, conservative I^{131} treatment certainly may be considered.

Recurrent Hyperthyroidism.—I^{131} is the treatment of choice for recurrent hyperthyroidism after either thyroidectomy or failure of antithyroid drug therapy. Since the volume of functioning tissue after surgery is usually small and palpation is impossible, calculation of dosage on the basis of tissue volume cannot be done. Dosage, therefore, is somewhat empirical.

Slightly larger doses of I^{131} are required than in the initial treatment of diffuse toxic goiter.

Thyrotoxicosis During Pregnancy.—Iodine therapy for thyrotoxicosis should not be considered during pregnancy. In the first trimester there is a small possibility of the radiation producing malformation of the fetus. The fetal thyroid gland is functioning during the second and third trimester and may be damaged. Even tracer studies should not be done if avoidable.

Solitary Thyroid Nodule.—Because of the high probability of malignancy,[5, 6] the solitary nodule in the thyroid gland should be treated by surgery only. Since up to 20 per cent of these nodules prove to be malignant, they should be removed as soon as detected. Except as a last resort, and only if surgery is absolutely contraindicated, is there any reason to consider I^{131}, and then only if the nodule takes up significant amounts of the iodine.

Simple (Colloid) Goiter.—Simple (colloid) goiter should not be treated with I^{131}.

Nodular Nontoxic Goiter.—Multinodular goiter should receive I^{131} only if surgery is positively contraindicated and then only in carefully selected cases.

Intrathoracic Goiters.—Diffuse toxic goiters with demonstrated mediastinal extensions but not showing large masses near the trachea may be treated with I^{131}. Large masses may swell from the irradiation and could produce respiratory obstruction. Intrathoracic multinodular goiters should be removed surgically.

MALIGNANCY OF THYROID

I^{131} uptake and excretion curves have been used successfully in the diagnosis of thyroid cancer. Thyroid carcinoma tends to take up less iodine and lose it faster than normal thyroid tissue. The urinary excretion and liver uptake and retention curves are altered.[14, 15] I have not had the opportunity to study a case by this uptake and retention curve technique. Patients suspected of having thyroid carcinoma should receive a large tracer dose of I^{131} the day before operation to permit radioautographic studies and measurements of the uptake by the malignant tissue. The patient also should be scanned for unsuspected metastases.

Surgery is the only method of treatment of thyroid carcinoma which has any significant chance of cure. Radiation is indicated in persistent disease or for the detection and treatment of metastases in certain types of tumor. Effective treatment of thyroid malignancy with radioactive iodine is possible only when significant amounts of the I^{131} are taken up and retained by the malignant tissue. Only the well differentiated adenocarcinomas, particularly those which form colloid, may be expected to do so. The cancerous tissue must take up from 50 to 100 times as much activity per gram as the rest of the body if any damage to the cancer is to result.

Early optimism that I^{131} might cure carcinoma of the thyroid gland has not been justified by experience to date. Few real cures have been obtained, but a good proportion of patients whose tumors take up iodine do receive significant palliative benefit.

Less than 10 per cent of thyroid tumors will take up enough I^{131} to justify treatment. A large dose of from 25 to 50 millicuries of activity should be given initially, and repeated if necessary, to destroy all normal thyroid tissue. In some cases, this may result in an increased uptake by the carcinoma. Thyrotropic hormone has been shown to increase tumor uptake in some cases. The behavior of metastases is entirely unpredictable, some showing no uptake with one dose but taking up considerable iodine a few months later.

Treatment of carcinoma requires large doses of

TABLE 2.—*Indications and Contraindications for Tracer Studies and Therapy with I^{131}.*

Indications for tracer studies with I^{131}—	Indications for therapy with I^{131}—
Determination of thyroid function in diagnostic problems.	Diffuse toxic or exophthalmic goiter.
Suspected residual or aberrant thyroid tissue.	Thyrotoxicosis after thyroidectomy or antithyroid drugs.
Suspected thyroid carcinoma.	Toxic nodular goiter when surgery is contraindicated.
Suspected metastases of thyroid carcinoma.	Thyrotoxicosis at any age when the patient absolutely refuses surgery or antithyroid drugs.
Undiagnosed intrathyroid, cervical, and mediastinal masses.	Intractable congestive heart failure or severe angina pectoris.
Suspected brain tumors or liver masses.	
Contraindications to tracer studies—	Contraindications to I^{131} therapy—
Pregnancy, especially second and third trimester.	Relative:
Current therapy with iodine or antithyroid drugs.	Toxic nodular goiter at any age with high uptake (more than 15 per cent).
Vomiting or diarrhea.	Young patient (under 25 years).
	Exophthalmic goiter with large gland.
	Absolute:
	Pregnancy.
	Nontoxic nodular goiter.
	Nontoxic diffuse (colloid) goiter.
	Solitary nodule of thyroid gland.
	Toxic nodular goiter at any age with low uptake (under 15 per cent).
	Intrathoracic multinodular goiter.
	Goiters producing mechanical obstruction.
	Hard glands likely to be malignant.

I^{131}, but there is a limit to total dosage. Severe depression of hematopoiesis has resulted in a few cases. Myxedema is prevented by replacement therapy.

However, in view of the poor prognosis of metastatic thyroid carcinoma by any other method of treatment, I^{131} should be tried if the histology and uptake studies suggest any possibility of help by this method. At present a therapeutic trial is the only valid way to determine whether the radioactive isotope will affect the tumor.

INTRACTABLE CARDIAC DISEASE

Patients having intractable congestive cardiac failure or severe angina pectoris may receive significant benefit from reduction of thyroid function with I^{131}, thus reducing the work required of the heart. From one-half to two-thirds of these patients may be expected to show improvement for from nine months to three years; the remainder will not be improved.[3] From two to three times the therapeutic dose for hyperthyroidism is required since the normally functioning gland takes up less iodine and is less radiosensitive than the hyperfunctioning gland.

The purpose of treatment is to reduce thyroid function to low levels without the shock of an operation, and then to maintain the patient just above myxedema level with desiccated thyroid. No complications of any significance have been reported, and the cost of the treatment is low. In selected cases, I^{131} therapy appears to be indicated on the basis of experience to date.

OTHER CONDITIONS

Diiodofluorescein and iodinated human serum albumin, made with I^{131}, have been used successfully in the diagnosis of brain tumors and certain other conditions which alter the blood brain barrier so as to increase the deposition of the radioactive material in the extravascular spaces. The resulting irregular distribution is detected by measuring the gamma-ray emission from symmetrical areas of the brain. Ashkenazy[1] has reported an accuracy of 95 per cent in the diagnosis of brain tumors. Other reports describe varying degrees of success with this technique.[7]

Total blood volume may be measured accurately with radioiodinated human serum albumin by employing the principle of simple dilution. Circulation times can be determined by this method. Detection of intrahepatic masses by studying the distribution of the isotope in the liver has been reported.[18]

SUMMARY

The current status of radioactive iodine (I^{131}) in clinical medicine has been reviewed. Tracer studies utilizing this isotope provide valuable additions to older diagnostic regimens. Treatment with this isotope is indicated in selected cases of thyroid and cardiac disease.

REFERENCES

1. Ashkenazy, M.; Davis, L.; and Martin, J.: Evaluation of Technique and Results of Radioactive Di-Iodofluorescein Test for Localization of Intracranial Lesions, J. Neurosurg. *8*:300-314 (May) 1951.

2. Bauer, F. K.; Goodwin, W. E.; Libby, R. L.; and Cassen, B.: Diagnosis of Morphologic Abnormalities of Human Thyroid Gland by Means of I^{131}, Radiology *61*:935-938 (Dec.) 1953.

3. Blumgart, H. L., and Freedberg, A. S.: Lewis A. Conner Memorial Lecture, Heart and Thyroid; With Particular Reference to I^{131} Treatment of Heart Disease, Circulation *6*:222-237 (Aug.) 1952.

4. Brues, A. M.: Carcinogenic Effects of Radiation, Advances in Biol. & Med. Physics *2*:171-191, 1951.

5. Cole, W. H.; Majarakis, J. D.; and Slaughter, D. P.: Incidence of Carcinoma of Thyroid in Nodular Goiter, J. Endocrinol. *9*:1007-1011 (Oct.) 1949.

6. Cope, O.; Dobyns, B. M.. Hamlin, E., Jr.; and Hopkirk, J.: What Thyroid Nodules Are to Be Feared? J. Clin. Endocrinol. *9*:1012-1022 (Oct.) 1949.

7. Farmer, T. W., and others: Use of Radioactive Iodinated Human Serum Albumin as Tracer Agent in Study of Cerebral Disorders, Proc. Soc. Exper. Biol. & Med. *81*:33-36 (Oct.) 1952.

8. Goodwin, W. E.; Cassen, B.; and Bauer, F. K.: Thyroid Gland Weight Determination from Thyroid Scintigrams with Postmortem Verification, Radiology *61*:88-92 (July) 1953.

9. Hamilton, J. G., and Soley, M. H.: Studies in Iodine Metabolism by Use of New Radioactive Isotope of Iodine, Am. J. Physiol. *127*:557-572 (Oct.) 1939.

10. Hertz, S.; Roberts, A.; and Evans, R. D.: Radioactive Iodine as Indicator in Study of Thyroid Physiology, Proc. Soc. Exper. Biol. & Med. *38*:510-513 (May) 1938.

11. Marinelli, L. D.; Quimby, E. H.; and Hine, G. J.: Dosage Determination with Radioactive Isotopes; Practical Considerations in Therapy and Protection, Am. J. Roentgenol. *59*:260-281 (Feb.) 1948.

12. Miller, E. R., and Sheline, G. E.: Studies with Radioiodine; Problem of Dosage in Treatment of Hyperthyroidism, Radiology *57*: 720-728 (Nov.) 1951.

13. Muller, H. J.: Radiation Damage to Genetic Material, Am. Scient. *38*:33-59 (Jan.) 1950.

14. Reynolds, L.; Corrigan, K. E.; and Hayden, H. S.: Diagnostic Use of Radioactive Isotopes, Am. J. Roentgenol. *68*:421-434 (Sept.) 1952.

15. Reynolds, L.; Corrigan, K. E.; and Hayden, H. S.: Detection of Concealed Thyroid Disease by Tracer Technique, J.A.M.A. *151*: 368-371 (Jan. 31) 1953.

16. Seaman, W. B.; Ter-Pogassian, M. M.; and Schwartz, H. G.: Localization of Intracranial Neoplasms with Radioactive Isotopes, Radiology *62*:30-36 (Jan.) 1954.

17. Seed, L., and Fields, T.: Treatment of Toxic Goiter with Radioactive Iodine, Springfield, Ill., Charles C Thomas, 1953.

18. Stirrett, L. A.; Yuhl, E. T.; and Libby, R. L.: New Technique for Diagnosis of Carcinoma Metastatic to Liver, Surg., Gynec. & Obst. *96*:210-214 (Feb.) 1953.

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BALLISTOCARDIOGRAPH PERFECTED

After more than two decades of medical research, the first successful bloodless method of accurately measuring the strength of a human heart beat has been achieved. Perfection of the ballistocardiograph apparatus was announced recently by the Air Research and Development Command in Baltimore.

The new device at present is employed by the Air Research and Development Command to evaluate the effect of partial pressure suits on the output of blood from the heart. However, it has been used clinically with promising results.

The apparatus consists of a light-weight bed suspended in so sensitive a manner that it moves with each minute rebound of the body caused by the ejection of blood from the heart. Coupled with a highly-sensitive accelerometer, the ballistocardiograph apparatus records on a graph the force and time course of the heart beat.

BENIGN BREAST TUMORS

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EXPERIENCE in private practice with more than 400 cases of breast lesions has stimulated our interest in this subject. Approximately 72 per cent of the patients with breast lesions have been found to have benign breast tumors of some sort. This paper was written to correlate our information so that we might gain a better understanding of these conditions. No attempt is made to mention every variety of benign breast tumors but rather to consider those that are most frequently observed.

A high percentage of benign breast tumors fall into a group in which much confusing terminology has been used. For example, there are the terms cystipherous desquamative epithelial hyperplasia, Brodie's disease, Reclus' disease, Bloodgood's blue dome cyst, mazoplasia, adenofibromatosis, Schimmelbusch's disease, nodular hyperplasia, fibrocystic disease, mastodynia, and chronic cystic mastitis, to name a few.

The impact of Geschickter's book[8] on the classification of breast tumors has been noted in recent years, and our discussion is confined chiefly to the following classifications: (1) mammary dysplasia, under which we note mastodynia, adenosis, and cystic disease; (2) fibroadenomas; (3) papillomas; and (4) hypertrophies, namely, prepuberal, virginal, and gynecomastia. In addition, the relation of benign breast tumors to carcinoma is discussed.

MAMMARY DYSPLASIA

Clinical observations and experimental studies have indicated the factors of hormonal imbalance in relation to the development of benign breast tumors. It has been stated that these tumors are "an expression of endocrine dysfunction." It is recognized that mammary development is secondary to the stimulation by estrogen, causing the development of lobular buds. It is known also that the stimulation by progestin causes differentiation of the epithelial cells in ducts in the breast tissue and that stimulation by the anterior pituitary gland activates the secretory mechanism. Experimentally, it has been shown in monkeys and rodents that testosterone has an action like that of progestin, and one would infer that this same function might be true in human beings. There are certain tumors of the adrenal cortex and there have been lesions in the third ventricle which also were shown to stimulate mammary growth and activity. Studies by Ewing indicated hereditary tendencies toward unusual mammary development.

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Cyclic changes in the breast have been noted over a long period of time and are considered physiologic and normal. Hormones may be used experimentally in rabbits and rodents to cause the development of almost every known breast tumor or neoplasm. Clinical studies, particularly using assays on urinary excretions, have indicated that patients with benign breast lesions have a relative hyperestrinism. To explain why only a certain portion of one breast or certain parts of both breasts are involved, Nathanson[13] has stated, "Localized areas of the specific tissue are unusually sensitive to a stimulus."

Mastodynia

Following Geschickter's classification, let us first consider mastodynia, which occurs most commonly in persons between 20 and 40 years of age. It constitutes the largest group of benign breast lesions. The diagnosis is made on the basis of the presence of pain, tenderness, and a thickened area which is usually located in the upper outer quadrant of one or both breasts. When a biopsy is performed, the pathologic picture is that of imperfect lobules with an increased connective tissue component. The treatment is usually nonsurgical in that as a rule the condition is self-limited (if it persists, it indicates the development of adenosis) and will terminate with a pregnancy or the menopause. These patients need reassurance. Some physicians prefer to treat them with mild, stimulating doses of endocrines, including both estrogen and testosterone, and luteal factors as well. Mild, stimulating doses of estrogen are believed by some physicians to stimulate activity of corpus luteum. Testosterone is thought by some doctors to counteract the effects of excess estrogen and progestin. There is no standardized hormone treatment.

It has been interesting to us over a period of years to know about the work of three brothers named Biskind, one a gynecologist, one an internist, and one a pathologist. In their studies, they noted the frequent association of cystic disease of the ovary, hyperestrinism, and benign breast lesions. They developed the thought that hyperestrinism was associated with poor liver function so that the liver did not conjugate the excess estrogens in the blood stream. Good results were reported in these cases following the administration of vitamin B complex to improve liver function.[3] This simple form of treatment we frequently have utilized along with heat and support. Clinically, it has been satisfactory since most patients

generally feel better following its administration anyway.

Adenosis

Adenosis occurs most commonly in persons between the ages of 35 and 45 years. Whereas mastodynia is usually self-limited, adenosis is more persistent. The diagnosis is made by the finding of definite nodularity; about one-third of the patients present themselves because of pain and two-thirds because of being conscious of the presence of a nodule. Adenosis may mimic carcinoma, and most cases require biopsy. Following the excision of a wedge of breast tissue containing this nodular area, the pathologic picture is that of a limited or a diffuse lesion in which there is a marked fibrous component, frequently small cysts, adenomas, papillomas, and epithelial hyperplasia. This condition is frequently difficult clinically to differentiate from carcinoma, and the microscopic picture also may be difficult to interpret, particularly on frozen section. It is well to be considerate of the pathologist when he requests that the diagnosis be deferred for permanent section.

Treatment for adenosis usually begins with the establishment of the diagnosis by biopsy. Occasional cases that do not cause concern from the clinical picture may be treated with progestin or B complex while being carefully observed at frequent intervals. It has been stated that adenosis will clear up if the patient becomes pregnant; this fact we have not personally witnessed nor have we been able to verify from several obstetricians.

Cystic Disease

Cystic disease of the breast occurs chiefly in the fourth decade of life. This condition is diagnosed by finding one or more cysts, more than 1 cm. in diameter, particularly during or near the menopause. Forty per cent of these patients have mild pain. The lesions, as a rule, will transilluminate and also may be diagnosed by aspiration; however, obtaining these signs is a problem if the cyst lies deeply in the breast or is thick walled. Treatment in the past was excision alone. These lesions do not respond to endocrines; however, 7 per cent are said to regress spontaneously. Geschickter[7] stated that 85 per cent do not recur following excision and that 35 per cent do not recur following aspiration. Many agree with Nathanson,[13] who stated that a physician may aspirate a solitary cyst with considerable safety.

If aspirations are done for diagnosis and treatment, certain precautions should be advised. Each case should be individualized with the following points in mind: (1) Patients who develop cysts after the menopause should have them excised as there is much greater hazard of neoplastic change and less likelihood of relative hyperestrinism. (2) If on aspiration the contents are found to be bloody or microscopic examination of suspicious looking contents shows marked epithelial elements, the cyst should be excised. (3) In many cases excision of the first simple cyst may be advisable, and then recurrent cysts may be aspirated with a feeling of safety. (4) If a nodularity is noted in the region of the aspirated cyst at the time of aspiration or when the patient is checked in three or four weeks, excision of this area should be performed. (5) Those patients who have recurrence of a cyst following a second aspiration should have the cyst excised. (6) A patient who cannot return conveniently for careful follow-up studies at frequent intervals should have a biopsy performed.

Many patients come to us with multiple cysts in both breasts and few are willing to have bilateral, simple mastectomies unless their lesions are exquisitely painful and sensitive. It is our opinion that simple mastectomy is performed too often for these benign lesions and should be avoided. In our experience, 25 per cent of the patients with cystic disease required only one aspiration. After seeing nearly 400 benign breast tumors in the office, we have witnessed the development of carcinoma in only 1 patient who had been followed over a period of thirty-two months with multiple cysts in both breasts.

FIBROADENOMAS

Not much time need be spent on discussing fibroadenomas. These occur most commonly in younger women. They are characteristically firm and do not transilluminate or aspirate. Recurrences are common, with as many as five or six recurrences in a single patient. Several Dallas physicians have noticed the frequency of necrosis in preexisting fibroadenomas with the beginning of lactation or in any part of pregnancy.

PAPILLOMAS

Papillomas are, of course, intraductal lesions, and the first symptom is commonly bleeding from the nipple. The discharge from the nipple may also be serous. It is recognized that nipple discharges may accompany inflammatory conditions within the ducts. Many have stated that it is safe to watch such cases until a palpable tumor presents itself, but the study of smears made of breast secretions has somewhat altered this conception. It also has been stated that more than 50 per cent of intraductal papillomas can be cured by a simple operative procedure which involves excision under general or local anesthesia and frozen section. When one can press on a single spot and see that a discharge of a drop of blood comes from a single duct, it has been possible to insert the

eye end of a milliner's needle into the duct and cut down on this to disclose the underlying papilloma, which may be small in size. This technique was used by one of us (F. A. S.) and found satisfactory before it was published by Babcock.[2] The value of smears can be shown best by the findings in 2 cases.

CASE 1.—Mrs. J., a 33 year old woman, had noted a bleeding from the left nipple for two days. She had seen her obstetrician and surgeon. Pressure on the lower inner quadrant of the breast caused a few drops of blood to appear from a single duct at the nipple. The laboratory report on a smear gave the following microscopic description: Sections of this tissue show many clumps of cells which are of large size and have the appearance and arrangement of malignant cells. The diagnosis was carcinoma of the breast. At operation, the milliner's needle was inserted into the duct from which a bloody appearing fluid could be expressed. This duct and all of its ramifications were followed to the periphery of the breast and a wedge excised. Upon excision of this wedge of breast tissue, multiple intraductal papillomas were noted near the periphery of the breast. Frozen section was reported as not malignant, but a permanent section was thought to be necessary; this was reported two days later as papillary adenocarcinoma. Following radical mastectomy there was no evidence of metastasis to axillary nodes.

CASE 2.—Mrs. S. T. D., a 62 year old woman, had a history of discharge and discomfort of the right breast for two months, with recent bleeding. Past history revealed that the patient had had a benign tumor removed from her right breast ten years previously. She had a scar above the areola of the right breast and a thickened narrow area exactly lateral to the areola of the right breast; several drops of blood were expressed from a single duct by pressure on this area. Microscopic examination of this smear showed clumps of cells having an appearance and arrangement suggestive of malignant cells. The pathologist gave the diagnosis: appearance very suggestive of malignancy. The patient had an operation similar to that of the patient in case 1. However, frozen section revealed adenocarcinoma and, following radical resection, the pathologic diagnosis was mucinous adenocarcinoma with six negative lymph nodes.

These cases do not belong in a paper on benign breast tumors but are included to show the value of smears and the fallacy of watching and waiting for a palpable tumor mass.

HYPERTROPHIES

Hypertrophy may be included in a discussion of benign breast tumors. There may be prepuberal hypertrophy in either male or female breasts. Teen-age boys frequently will have a doughnut-like hypertrophy which often is rather sensitive and occasionally embarrassing in size. As a rule these are self-limited and respond to hot applications and observation for a short period of time. Several girls 10, 11, and 12 years of age have been seen to have unilateral hypertrophy usually with a ring of breast tissue with a central depression, and conservatism is warranted in these cases also. Virginal hypertrophies are occasionally massive. Our experience has been limited to 1 case in which plastic surgery was necessary for both physical and psychologic reasons.

Hypertrophy of the male breast is well known as gynecomastia; many of these lesions deserve observation and will regress spontaneously. If there is a question of irregular induration or persistent pain, a simple mastectomy is warranted and can be performed, as a rule, through an incision halfway around the circumference of the areola.

RELATION TO CARCINOMA

The relationship of benign tumors to carcinoma of the breast has been widely considered. Many physicians have seen more than one patient with a breast tumor which had been present for ten to twenty years before a sudden increase in size, accompanied usually by some pain, was noted and the patient was found to have a malignant condition. Most of these malignancies, we believe, have formed in persisting cysts into which papillary projections have grown and malignant changes developed over a period of many years, mostly in the postmenopausal patient. All doctors agree that mastodynia is not related to the development of carcinoma. Geschickter[7] has stated that adenosis was related to the development of carcinoma in approximately 4 per cent of his patients. Again, Geschickter stated that 5 of 445 patients with cystic disease followed for a period of ten years developed carcinoma. In his study at Boston, Warren[17] found that patients with cystic disease had four and a half times the likelihood of developing carcinoma as the average in the state of Massachusetts. Clagett,[4] at Mayo Clinic, reported five times the likelihood in similar cases in the state of Minnesota. Lewison[10] stated that evaluation was a sort of game to consider the transition from normal breast through the intermediate stage to carcinoma and believed the practical approach to be careful clinical follow-up. His studies indicated that 2.6 to 3.6 times the likelihood of developing carcinoma was found in patients with previous benign breast tumors.

The term "premalignant" is one that should be used carefully, and it is believed that simple mastectomy for this so-called condition is performed too often. It is known that 7.5 to 10 per cent of patients with a carcinoma in one breast will develop carcinoma in the opposite breast, and a simple mastectomy of the opposite breast is frequently indicated and should be performed if the breast is massive or questionable nodules are present.

Aberrant breast tissue is almost altogether limited to the axilla; malignant tumors which develop within it are usually highly malignant, and it is a good general practice to advise excision of axillary breast tissue. Massive virginal hypertrophy may be followed by malignant changes, and plastic surgery may be

indicated in these patients. An occasional painful nodular breast which defies other diagnostic procedures may warrant unilateral or bilateral simple mastectomy.

Following the previously mentioned considerations, further evaluation is indicated. It is interesting to note that, after years of intense estrogen administration, the rhesus monkey failed to produce tumors. Another interesting point is that massive and prolonged estrogen therapy in patients with advanced or metastatic breast carcinoma has not been found to develop benign tumors or secondary carcinoma when it is applied in the postmenopausal state. It has been noted that gynecomastia follows estrogen administration for carcinoma of the prostate. Stout[16] reported the finding of chronic cystic mastitis in 74.4 per cent of 1,038 surgically treated breasts and reported the finding of chronic cystic mastitis in 78.5 per cent of 410 patients with carcinoma of the breast. Frantz and her co-workers,[6] in routine autopsies, found chronic mastitis in 53 per cent of the breasts in patients who had not previously had breast problems. Therefore, it is evident that we do not have complete knowledge in regard to the effect of hormones or the relationship of benign breast tumors to carcinoma.

SUMMARY AND CONCLUSIONS

A simple classification of benign breast tumors has been presented. Etiology, diagnosis, and treatment have been discussed, and the relationship of benign tumors to malignancies has been evaluated.

In conclusion, the following recommendations are suggested for practical use:

1. Patients with breast lesions should have regular follow-up checks and also should be instructed in the technique of self examination.

2. Aspiration of cysts of the breast for diagnosis and treatment may be done safely with certain limitations mentioned previously.

3. Microscopic study of smears made from discharges from the nipple is a valuable aid in diagnosis.

4. Aberrant, or accessory, breast tissue should always be excised because of the high incidence of malignant changes.

5. Patients past the menopause with cysts or lumps in their breasts should have biopsies performed.

REFERENCES

1. Atkins, H. J. B.: Painful Nodular Breast; Plea for Term Fibro-Adenosis, Lancet *1*:253-255 (Feb. 15) 1947.

2. Babcock, W. W.: Simple Operation for Discharging Nipple, Surgery *4*:914-916 (Dec.) 1938.

3. Biskind, M. S.; Biskind, G. R.; and Biskind, L. H.: Nutritional Deficiency in Etiology of Menorrhagia, Metrorrhagia, Cystic Mastitis, and Premenstrual Tension, Surg., Gynec. & Obst. *78*:49-57 (Jan.) 1944.

4. Clagett, O. T.; Plimpton, N. C.; and Root, G. T.: Lesions of Breast; Relationship of Benign Lesions to Carcinoma, Surgery *15*:413-419 (March) 1944.

5. Davis, H. H.: Cystic Disease of Breast; Critical Review, Surgery *10*:663-674 (Oct.) 1941.

6. Frantz, V. K.; Pickren, J. W.; Melcher, G. W.; and Auchincloss, H., Jr.; Incidence of Chronic Cystic Disease in So-Called "Normal Breasts," Cancer *4*:762-783 (July) 1951.

7. Geschickter, C. F.: Endocrine Aspects of Chronic Cystic Mastitis, South. Surgeon *10*:457-486 (July) 1941.

8. Geschickter, C. F.: Diseases of Breast, ed. 2, Philadelphia, J. B. Lippincott Co., 1945.

9. Ingleby, H.: Normal and Pathologic Proliferation in Breast with Special Reference to Cystic Disease, Arch. Path. *33*:573-588 (May) 1942.

10. Lewison, E. F., and Lyons, J. G., Jr.: Relationship Between Benign Breast Disease and Cancer, A.M.A. Arch. Surg. *66*:94-114 (Jan.) 1953.

11. Martin, S. J.: Diagnosis of Tumors of Breast, S. Clin. North America *26*:319-325 (April) 1946.

12. Morton, J. H.: Endocrine Features and Treatment of Chronic Cystic Mastitis and Their Relation to Infertility, New York State J. Med. *46*:1815-1818 (Aug. 15) 1946.

13. Nathanson, I. T.: Medical Progress; Present Concepts of Benign Breast Disease, New England J. Med. *235*:516 (Oct. 3) 1946; *235*:548 (Oct. 10) 1946.

14. Pullinger, B. D.: Cystic Disease of Breast; Human and Experimental, Lancet *2*:567-572 (Oct. 18) 1947.

15. Pybus, F. C.: Mammary Cysts and Their Treatment, Lancet *1*:480-481 (April 12) 1947.

16. Stout, A. P., cited in Frantz.[6]

17. Warren, S.: Relation of "Chronic Mastitis" to Carcinoma of Breast, Surg., Gynec. & Obst. *71*:257-273 (Sept.) 1940.

Medical Arts Building.

Physicians Earn Less Than $4 Per Hour

A survey made by the Bureau of Medical Economic Research of the American Medical Association of data supplied by 30,000 physicians for a study of 1949 incomes made jointly by the bureau and the United States Department of Commerce indicates that physicians averaged more than 56 hours of work a week, general practitioners more than 60 hours, and some specialists 50 to 56 hours. Distribution of net annual earnings over the number of hours worked, with the number of hours computed according to prevailing practices of large employers in the United States regarding overtime pay, would give an average "hourly wage" for physicians of $3.13 in 1949 and, on the basis of small sample studies of the U. S. Department of Commerce, $3.26 in 1950 and $3.54 in 1951.

Similar computations based partly on a survey by the Bureau of Economic Research and Statistics of the American Dental Association show the average work week of dentists to be 45 hours with the average "hourly wage" for dentists $3.01 in 1949, $3.12 in 1950, and $3.31 in 1951.

These figures are announced in an editorial in the October 2 issue of *The Journal of the American Medical Association.*

Nursing Activities Manual

A publication to aid hospitals in making better use of personnel, entitled "How to Study Nursing Activities in a Patient Unit," has been put out by the United States Public Health Service. A manual offering a method by which hospitals of all sizes may determine how nursing personnel time is distributed between duties requiring nursing skills and those which could be performed by other hospital personnel, the purpose of its publication is to teach administrators how to give nurses more time to be with patients and effectively use their nursing skills.

McWHIRTER TECHNIQUE FOR TREATMENT OF BREAST CANCER

An Appraisal

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THE treatment of breast cancer falls to the surgeon and the radiotherapist, but the problem of breast cancer is shared by every physician. Every physician is a counselor who must answer for his patients and for himself the contradictory views that arise as to diagnosis, prognosis, method of treatment, and effectiveness of treatment.

The role of radiotherapy in the treatment of breast cancer is one point of sharp disagreement. Taylor[8] stated that he was unable to establish that prophylactic irradiation improved the results of operation or decreased or deferred the appearance of operative field recurrences. In reporting on the results at the Massachusetts General Hospital, he stated that when there was no axillary involvement, about 75 per cent of the patients were cured at five years, but when there was axillary involvement, the cures were about 33 per cent. McWhirter,[5, 6] observing the same disease, challenged the usefulness of radical mastectomy. He argued that if disease was localized to the breast, radical mastectomy was unnecessary. If axillary metastases were present, then the axillary dissection of radical mastectomy was not conspicuously successful because the cure rate dropped from approximately 70 per cent to 30 per cent despite the dissection of axillary lymph nodes. He reasoned that simple mastectomy and radiation of the lymphatic drainage areas would do as well.

In 1941 in southeast Scotland a program was undertaken in which a treatment policy for breast cancer would be simple mastectomy plus a rigidly prescribed and executed course of postoperative radiotherapy.[5] The five and ten year results of this program are now available and compare favorably with the results of radical mastectomy (table 1).

TABLE 1.—*Five and Ten Year Results of Treatment of Breast Cancer by Radical Mastectomy and by Simple Mastectomy and Radiation.*

Treatment	Absolute Survival Rate 5 Years No. Patients	%	10 Years No. Patients	%
Radical mastectomy (Haagensen[1])	668	47.2	None available	
Simple mastectomy and radiation (McWhirter[6])	1,882	42.0	480	25.0

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The absolute survival rate is preferred for comparing the effects of treatment in different institutions. It is based upon all the primary cases of breast cancer that are seen, early or late, operable or too advanced for any form of treatment. All survivors are counted whether they are treated or not. Although each institution is apt to have a dominant treatment policy, it is obvious that not all patients will be eligible for a single form of treatment. The absolute survival rate, therefore, compares the course of the disease in different centers as it is influenced by the treatment policy of the institution. If one were to deal only with patients selected for a given form of treatment, the criteria for selection could not be uniform from one center to another and the effect of treatment could not be compared directly.

In studying the survival figures as a measure of the effectiveness of treatment, it should be remembered that no author intentionally implies that all survivors are living solely as the result of treatment or that all living patients would be dead had they not been treated. The natural duration of breast cancer is subject to extreme variation. We are all aware of reported instances of patients living for twenty years or more without treatment, and many physicians have personal knowledge of treated but uncured patients who lived ten years or more. It must be concluded, therefore, that some patients in any group of survivors would have survived even without treatment.

Any unselected series of consecutive patients could be divided into three groups. Group A would be those with disease confined to the breast. For these patients, cure should be possible either by simple or radical mastectomy. Group B would be those patients with metastatic disease limited to the accessible axillary lymph nodes. Group C would be those patients with more distant spread of disease in whom cure by any method of treatment would not be a reasonable goal.

If there is any difference in the adequacy of surgical dissection and radiation in the treatment of axillary metastases, it is the survival of patients in group B that could be influenced by the choice of treatment.

Since survival rates under the two treatment policies do not show a significant difference, one might conclude that either the methods are equally effective

or group B is so small that any difference in effectiveness is not evident in over-all survival.

Recent work by Handley,[2, 3] by Wangensteen,[9] and by McDonald, Haagensen, and Stout[4] has shown a previously unsuspected incidence of metastases in the supraclavicular and internal mammary regions. Many patients, formerly believed to have localized disease, must be placed in the inoperable group due to distant spread. Handley's results,[3] shown in table 2, were based on an investigation of operable patients. Approximately one-half the patients with axillary metastases also had metastases in internal mammary lymph nodes.

TABLE 2.—*Incidence of Metastases to Internal Mammary Lymph Nodes as Reported by Handley.*[3]

	Incidence (%)
No axillary metastases found	9
Axillary metastases found	48
All operable cases	34
Primary in inner half of breast	74
Primary in outer half of breast	27

On the basis of clinical findings, group B is represented by those patients in whom axillary lymph nodes are palpable. For this group, McDonald, Haagensen, and Stout[4] recommended in a 1953 report the "triple biopsy" prior to radical mastectomy. In their procedure the diagnosis is confirmed from the primary lesion, and if metastases are found in either the supraclavicular or internal mammary region, the patient is not eligible for radical mastectomy. Of the first 13 patients so investigated, 8 had metastases in both sites. This suggests that group B (those patients with metastases limited to the axilla) may be small. The group will be even smaller than indicated because the recognized metastases must, of course, be large enough for the pathologist to find. The incidence of metastases increases with painstaking dissection and with serial sections of lymph nodes,[7] but there must always remain the earliest metastasis which is too small to find. We come to the conclusion, then, that whenever axillary lymph nodes are positive for metastatic cancer, there is a high likelihood of more distant spread of disease.

BASIS OF COMPARISON

In weighing the merits of radical mastectomy versus simple mastectomy with radiation, these features must be considered:

1. Both are forms of treatment limited to the chest wall and the regional lymphatics.

2. Outcome, in terms of survival, depends on the extent of the disease at the time of treatment rather than upon treatment itself.

3. Treatment methods should be evaluated and compared on a basis of control of the disease in the treated area.

Treatment methods are compounded of knowledge of the natural course of the disease, development of technical skills, and analysis of the effects of treatment.

There are always two approaches to treatment of disease. One is to act upon the conclusions from past experience and attempt to equal accepted standards; the other is to test the validity of these conclusions by modifying techniques in an attempt to improve on accepted standards.

Radical mastectomy is an example of the first approach to treatment of carcinoma of the breast and remains the accepted form of treatment for operable breast cancer. However, the work of Handley,[2, 3] Wangensteen,[9] and McDonald, Haagensen, and Stout[4] represents new knowledge of the natural course of the disease and McWhirter's work is the development of an alternate technique of treatment which is apparently equally effective. The application of the McWhirter technique for the treatment of breast cancer is an example of the second approach to treatment.

McWhirter's evidence may be tested justifiably in the following circumstances:

1. When patients are poor operative risks because of age or competing disease.

2. When breast cancer is inoperable by the strictest application of the criteria of operability. Haagensen's criteria of operability[4] have been revised recently to exclude those patients who are discovered by the triple biopsy to have occult metastases in the supraclavicular region or internal mammary chain. There will be an appreciable number of patients in this category who were formerly eligible for radical mastectomy and may now properly be offered treatment by the McWhirter technique.

3. When the control of the primary lesion is important to the management of a patient, even in the presence of limited distant metastases.

If the McWhirter technique is applied in the circumstances outlined, experience will be gained in the technical aspects of the method. An appraisal of the usefulness of this approach cannot be made on a basis of survival rate because the favorable cases have been selected for radical mastectomy. Even in the unfavorable circumstances which have been recommended for testing the technique of simple mastectomy and radiation, there is a practical basis for testing its merit. This would include control of the disease on the chest wall and in the axillary and supraclavicular drainage areas; mortality and morbidity; anatomic defect; late sequelae, for example, lymphedema or radiation injury; and functional impairment.

These are the direct and observable effects of any treatment for breast cancer. They are equally applicable for the evaluation of the McWhirter technique

of simple mastectomy and radiation, the conventional radical mastectomy, or the so-called super-radical mastectomy now being carried out in some centers. These aspects have not been critically analyzed for any series of breast cancer treated by any method.

Available information indicates that because of the nature of the disease, no marked difference may be expected in the survival rates associated with any form of treatment. The direct and observable effects of treatment that have been outlined represent data yet to be collected before the relative merit for different methods of treating breast cancer can be determined.

SUMMARY

Survival statistics for patients treated by simple mastectomy and radiotherapy compare favorably with those treated by conventional radical mastectomy. The basis for establishing the relative place of these two methods of treating breast cancer requires a critical analysis of the direct and observable effects and complications of the two methods. This information is not yet available.

At present, radical mastectomy is the accepted form of treatment for favorable cases of breast cancer. Its proper application requires strict observance of criteria of operability which were designed to offer reasonable assurance that disease is still localized to breast and surgically accessible lymph nodes. When radical mastectomy was the only form of treatment, compassion sometimes influenced judgment and patients unsuitable for radical surgery were subjected to futile operation. Simple mastectomy and radiation are now sufficiently well established to merit serious consideration. The method might justifiably be tested in a group of patients who are shown to be ineligible for radical mastectomy. Experience with the local effects of the method will provide a basis for determining the ultimate role of the McWhirter approach to the treatment of breast cancer.

REFERENCES

1. Haagensen, C. D.: Treatment and Results in Cancer of Breast at Presbyterian Hospital, New York, Am. J. Roentgenol. *62*:328-334 (Sept.) 1949.

2. Handley, R. S., and Thackray, A. C.: Invasion of Internal Mammary Lymph Glands in Carcinoma of Breast, Brit. J. Cancer *1*:15-20 (March) 1947.

3. Handley, R. S., and Thackray, A. C.: Internal Mammary Lymph Chain in Carcinoma of Breast; Study of 50 Cases, Lance *2*:276-278 (Aug. 13) 1949.

4. McDonald, J. J.; Haagensen, C. D.; and Stout, A. P.: Metastasis from Mammary Carcinoma to Supraclavicular and Internal Mammary Lymph Nodes, Surgery *34*:521-542 (Sept.) 1953.

5. McWhirter, R.: Cancer of Breast, Am. J. Roentgenol. *62*:335-340 (Sept.) 1949.

6. McWhirter, R.: Simple Mastectomy in Treatment of Breast Cancer, Brit. J. Radiology, in press.

7. Saphir, O., and Amromin, G. D.: Obscure Axillary Lymph-Node Metastasis in Carcinoma of Breast, Cancer *1*:238-241 (July) 1948.

8. Taylor, G. W.: Treatment and Results in Cancer of Breast, Am. J. Roentgenol. *62*:341-344 (Sept.) 1949.

9. Wangensteen, O. H., in discussion on Taylor, G. W., and Wallace, R. H.: Carcinoma of Breast; 50 Years Experience at Massachusetts General Hospital, Ann. Surg. *132*:833-843 (Oct.) 1950.

MORTALITY AT SCHOOL AGES DECLINES

Extraordinary gains have been made over the past twenty years in reducing mortality at the school ages, statisticians of the Metropolitan Life Insurance Company report. In the experience of the insurance company's industrial policyholders at ages 5 to 14 years, the death rate for boys dropped nearly two-thirds, from 158 to 57 per 100,000 between 1933 and 1953, and the rate for girls has declined even more sharply, from 126 to 37 per 100,000.

In each sex decreases of 85 per cent or more were recorded over the twenty year period in the death rates for a number of diseases, including the principal communicable diseases of childhood, appendicitis, pneumonia and influenza, and tuberculosis.

Despite this progress, there are still about 15,000 deaths among children at school ages in the general population of the United States, and a considerable part of the loss of life is amenable to control, according to the statisticians.

Accidents are the greatest single menace to child life, accounting for more than two-fifths of the total mortality among boys, and for more than one quarter of the mortality among girls. Second in rank as a cause of death are the cancers, which twenty years ago were a minor cause of death at the school ages. The leukemias account for nearly a half of all the deaths attributed to malignancy among school-age children.

Although spectacular progress has been made in the control of the infectious diseases, they are still responsible for an appreciable loss of life among children. Pneumonia and influenza, and acute poliomyelitis continue to be among the leading killers at ages 5 to 14, but the death toll from these diseases varies from year to year with their prevalence and virulence.

NEW PORTABLE RESUSCITATOR

A resuscitator that can be used anywhere from a dentist's office to a battlefield has been developed while researchers at Western Reserve University and the University Hospitals of Cleveland were working on a small oxygen inhalator for use in hangover treatment of acute alcoholism, Dr. Robert A. Hingson, Cleveland, said in the October 9 *Journal of the American Medical Association.*

The device, without tanks attached, weighs about 17 ounces and can be held in the palm of one hand; it has a rubber face mask, a rebreathing bag, and two aluminum arms to contain gas or oxygen cylinders.

Dr. Hingson said that the pocket-size resuscitator could be used by patients with heart trouble, by passengers of planes at high altitudes, and by police and firemen in drowning accidents, mine explosions, fires, and other suffocation emergencies. He said that the device could be dropped undamaged from a plane without a parachute to forward positions on the battlefield and in disaster areas.

The smallest such unit now in use weighs 40 pounds; the new device weighs only 2 pounds, including gas or oxygen cylinders, and could be used even as a gas mask for twenty minutes to an hour during evacuation from dangerous areas of smoke, poison gas, or incendiary explosives, he stated.

RADIATION THERAPY IN MANAGEMENT OF THE LYMPHOMAS

SIMEON T. CANTRIL, M. D., Seattle, Washington

A DISCUSSION of the lymphomas (exclusive of leukemias) is necessarily a broad subject. To be more meaningful to the practitioner it would seem that problems relating to diagnosis are of equal importance with those of treatment. Rather than describing technicalities in the management of lymphomas by irradiation, this presentation emphasizes a discussion of problems referable to diagnosis and to treatment as they relate to certain of the pathologic and clinical forms of the disease.

In a group with as widespread manifestations as exist with the lymphomas, one finds varying opinions and practices regarding methods of irradiation or the use of chemotherapy. The views expressed herein are those which result from fifteen years' experience in the management of the lymphomas in the Tumor Institute of the Swedish Hospital. They are experiences which we as a group have accumulated and from which we have evolved our present methods of management.

Finally, to bring so large a subject into sharper focus, it may be more instructive to discuss a limited number of problems than to attempt a general survey lacking in direct clinical application.

Pathologically, we are speaking of the lymphomas as a group comprised of Hodgkin's disease, lymphosarcoma, and giant follicle lymphoma. For purposes of discussion here it is not important to differentiate further between the separate pathologic varieties of Hodgkin's disease or lymphosarcoma, as there seems to be little correlation between the pathologic subdivisions in either and their radioresponsiveness or prognosis. It is important, however, to differentiate by microscopic confirmation whenever possible whether one is dealing with Hodgkin's disease, lymphosarcoma, or giant follicle lymphoma because the treatment, radiosensitivity, and more particularly, the natural history have important dissimilarities. The diseases are similar, however, in that they mask or simulate so many other pathologic states and may be so bizarre in signs and symptomatology that in many instances the problems of diagnosis are in themselves extremely puzzling. Whereas one or more decades ago syphilis found its way into the list of those diseases to be excluded in not too obvious diagnostic problems, its place may now be taken by the lymphomas. In our experience they affect all ages and may be manifest to varying degrees in all important organ systems to produce at times an Oslerian problem in differential diagnosis. Fortunately the pathologist often can resolve the problem if only the physician thinks of the lymphomas as possibly the underlying disease state and can furnish him the material for pathologic study.

From the Tumor Institute of the Swedish Hospital.
Read before Section A (Medical), Texas Medical Association, Annual Session, San Antonio, May 5, 1954.

HODGKIN'S DISEASE

Patients with Hodgkin's disease in whom the initial manifestation is lymphadenopathy limited to a single regional group of lymph nodes seem to be in the minority. When such a finding results and careful clinical and roentgenologic examination gives no evidence of other demonstrable involvement, the patient receives roentgen therapy directed to the regional lymphadenopathy.

It is our aim to give sufficient irradiation to produce permanent arrest of the local process. In our experience one cannot be certain of this short of a dose of 3,500 r minimum delivered to the tumor-bearing area in three to four weeks. There are also those in whom larger doses are required for local arrest of growth. The majority of such patients eventually will have progression of the disease in other superficial or deep lymphatics, or later will succumb by invasion of the important organ systems. Yet the time factor for this progression of events cannot be predicted at the outset with any certainty. We have seen rapidly lethal Hodgkin's disease, and also have seen patients who have been in a relatively good and efficient state of health over several years before impairment becomes serious. There are those few and unpredictable patients in any large group who survive (perhaps with their Hodgkin's disease) for long periods and seemingly have no symptomatic reappearance. In our material there are 3 patients, all with cervical and mediastinal disease, who have survived for ten or more years.

It is for reasons of unpredictability that we heavily irradiate the more localized Hodgkin's disease, and particularly that appearing as cervical, axillary, or mediastinal lymphadenopathy. When the disease as first seen involves the abdomen, bone, retroperitoneal, or pelvic lymphatics, the prognosis is less favorable for long survival. If, however, the general condition of the patient is reasonably good and without evidence of severe bone marrow replacement, then if

one hopes to obtain any kind of worth-while palliation, irradiation still must be carried to a dose within the diseased tissues which is sufficiently great to produce freedom from major complaints from the irradiated region. Otherwise maximum benefits of irradiation are not obtained. Resorting to reirradiation at a later time is usually not helpful, although we have done so successfully to accomplish local arrest in a few cases when initial irradiation had been inadequate, either in dose or in volume of tissue irradiated.

With certain exceptions to be mentioned later, we have continued the use of external roentgen-ray therapy as the primary therapeutic agent when the disease clinically advances to involve other lymphatic areas and is producing symptoms which are important to the patient's welfare. We do not always attempt to irradiate all scattered lymphadenopathies if certain of these are asymptomatic. Realizing that the patient will require more irradiation as time goes on, we prefer to spare him the injury to hemopoietic tissues and use roentgen therapy when one or another focus becomes symptomatic. We do so with the realization that in other than Hodgkin's disease which is seen in a stage involving a single or at the most contiguous lymphatic areas, the process eventually and inevitably will become more generalized. So-called "prophylactic irradiation" to regions as yet uninvolved or to asymptomatic or to nonprogressing adenopathies wastes both the patient's recuperative reserves and the roentgen therapy which may be needed later for more important infiltration. We see no detriment to the patient in regularly observing quiescent lymph nodes and treating them when enlargement becomes important. Following this course we have used roentgen therapy to cause sufficient local regression of fossae as they have become clinically important to foci

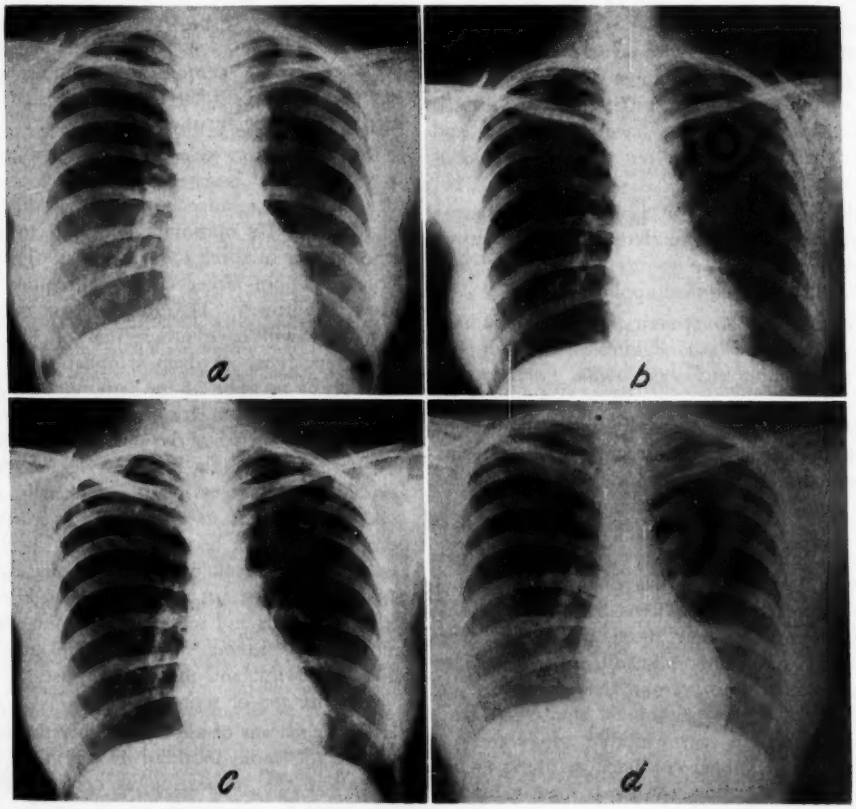

FIG. 1a. Mediastinal lymph node enlargement associated with bilateral supraclavicular lymphadenopathy was discovered on preemployment examination of a 33 year old woman. The original lesion as of March 7, 1945, is pictured. Biopsy revealed Hodgkin's disease. Roentgen therapy, 2,500 r to the mediastinum, was given in twenty-seven days.

b. A roentgenogram made August 8, 1945, showed the hilar mass to be regressing.

c. One year after irradiation, February 2, 1946, gradual regression was apparent. No irradiation to the neck was administered until 1950, when 3,500 r to the left cervical region in fifteen days was given because of an enlarging cervical lymph node.

d. A roentgenogram made March 24, 1951, indicated that the patient was well. She remained so to 1954.

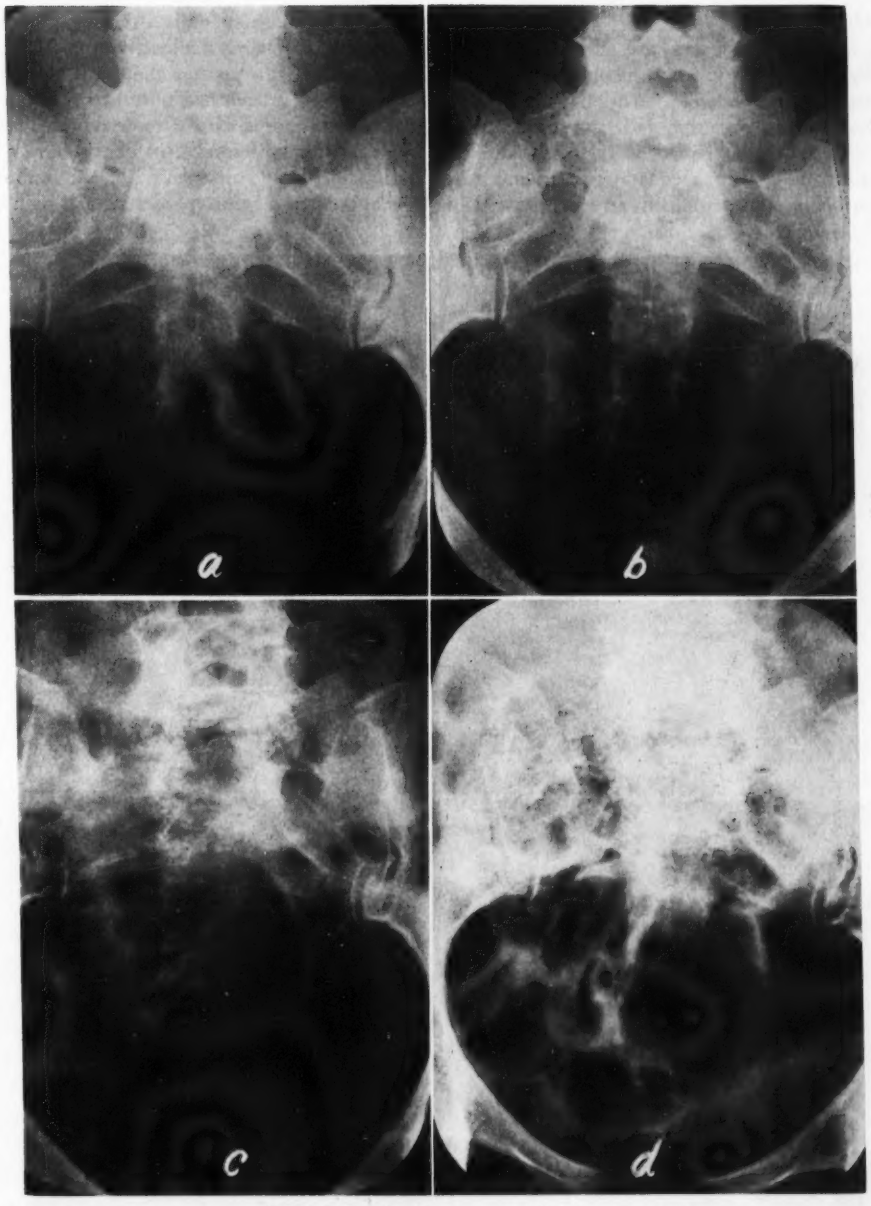

FIG. 2a. A woman aged 42 was seen originally in 1944 with massive bilateral cervical and axillary lymph nodes. The condition was diagnosed as Hodgkin's disease. Radiation therapy was given to the cervical disease in 1944 and to a mass in the left part of the pelvis in January, 1945. The pelvis was asymptomatic in 1944 when this roentgenogram was made.

b. Swelling and pain in the right sacroiliac region was evident when a roentgenogram was made June 29, 1948, and destruction of bone in the right upper sacrum had begun.

c. Spinal fusion was done by a surgeon unaware of the presence of Hodgkin's disease, and he found bone destruction, as evidenced in the roentgenogram made September 15, 1948.

d. This roentgenogram was made December 8, 1948, following spinal fusion and roentgen irradiation to the right sacral focus with bone regeneration. The patient died in 1949 of uremia of Hodgkin's disease.

carry a number of patients for a period of years before irradiation is no longer useful.

In the irradiation of every patient with Hodgkin's disease due attention is given to maintaining the general condition of the patient. Nutrition, weight, status of the blood, fever, sweating, and pain are all to be queried, observed, and treated as they bear directly on the ability to sustain adequate irradiation locally as well as being signs of possible further spread of disease which one is not at the time treating.

The only agents other than roentgen rays which currently have any place in the treatment of Hodgkin's disease are systemic irradiation by radioactive substances, primarily radioactive phosphorus, and the use of chemotherapy in the form of the nitrogen mustards. We have had little experience with radioactive phosphorus, but in those more advanced states wherein it has been used, its effects have not been as satisfactory as the nitrogen mustards. Radioactive colloidal gold or chromic phosphate can be useful, how-

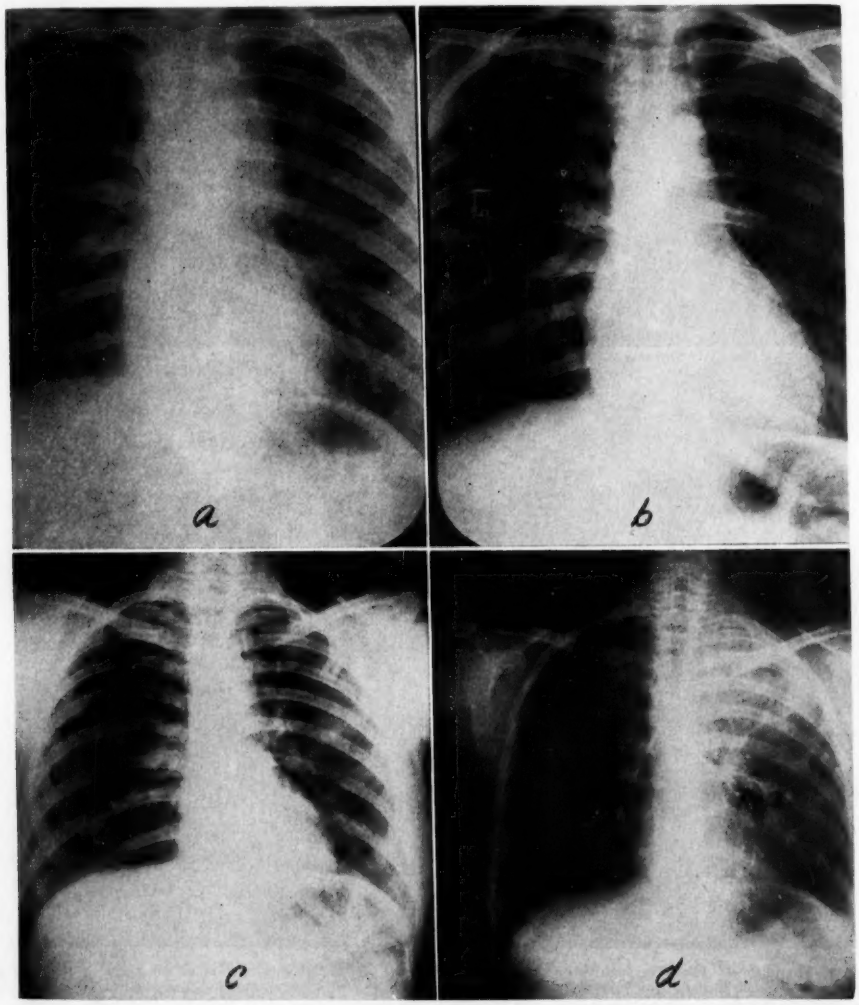

FIG. 3a. A woman aged 22 was seen in February, 1949 (roentgenogram made February 9), with bilateral cervical and mediastinal lymph node enlargement. Hodgkin's disease was diagnosed. Roentgen therapy was administered, 2,800 r to the midmediastinum in thirty-seven days.

b. A roentgenogram of the chest made April 28, 1949. Irradiation, 3,900 r, was directed to an enlarging right cervical lymph node in 1951.

c. The patient became asymptomatic and lymph node enlargement disappeared. A follow-up chest roentgenogram made October 22, 1953, showed soft infiltration of the left upper lung parenchyma. Tuberculosis was excluded.

d. A roentgenogram made April 16, 1954, showed progressive infiltration with probable atelectasis. Bronchial fixation encountered in bronchoscopy and failure of filling of the left upper bronchus was believed to be due to probable obstruction from hilar lymph nodes. The patient in 1954 was still asymptomatic except for generalized pruritus.

ever, in significantly reducing the pleural effusions due to pleural infiltration by Hodgkin's disease.

Although our primary resource is external roentgen therapy, we have used nitrogen mustard in selected cases and found it helpful. In this work we have been assisted by Dr. James Crosbie. In general, preference has been given to nitrogen mustard administered intravenously rather than to triethylene melamine given orally. The intravenous route is for certainty of dosage and prompter effect.

Chemotherapy has been used under the following conditions: (1) When roentgen therapy is no longer useful because of a disease too widespread for irradiation, or in previously heavily irradiated regions with infiltration and fibrosis, nitrogen mustard may help. The general condition of the patient, and particularly his blood, must be able reasonably to support the toxic effects of nitrogen mustard, or by transfusions the blood must be brought to levels which support the drug's use. (2) In patients who either initially or later present the clinical picture of anemia secondary to bone marrow replacement by Hodgkin's disease or associated hemolytic anemia, provided they have sufficient blood and supportive agents, nitrogen mustard may cause a temporary improvement in the anemia with resulting benefit to well being. (3) The intractable itching of Hodgkin's disease may be relieved for varying periods by nitrogen mustard. Some

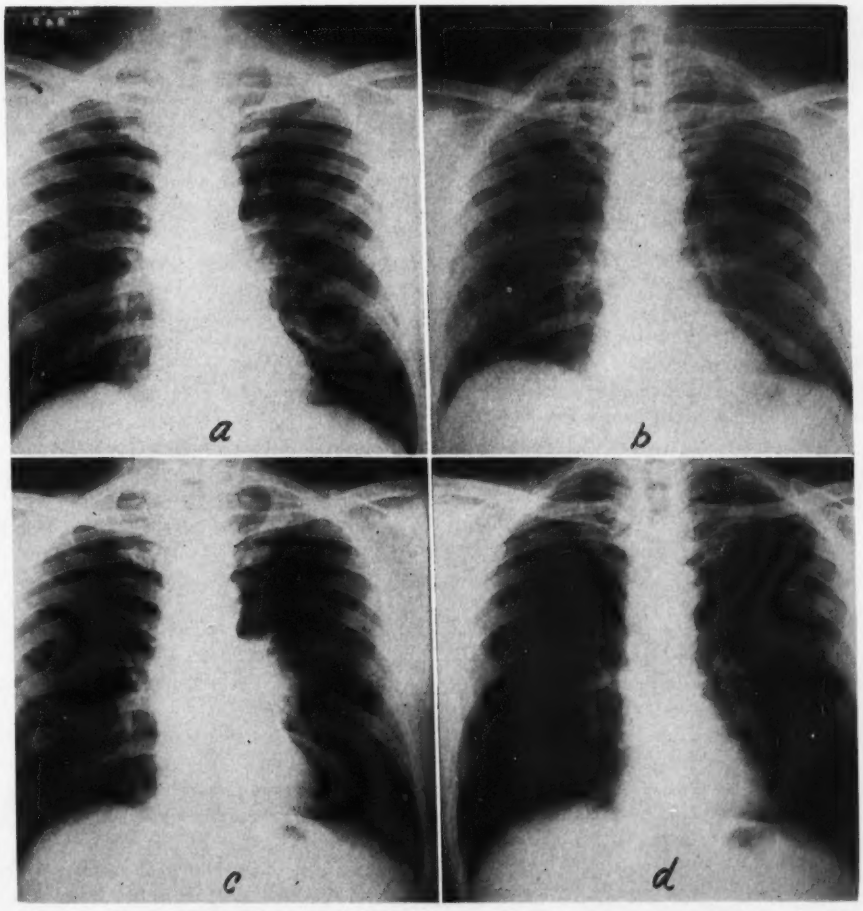

FIG. 4a. A 49 year old man had had bilateral supraclavicular swelling with enlarged lymph nodes for two months prior to November 6, 1950, when this roentgenogram was made. His general condition was good; no anemia was evident. Bilateral hilar lymph node enlargement was diagnosed as Hodgkin's disease upon biopsy of one of the nodes which was removed. Radiation was administered bilaterally to the cervical regions, 3,750 r to each, and to the midmediastinum, 3,250 r, over a period of thirty-eight days.

b. Roentgenogram of the patient's chest December 27, 1950. His general condition was excellent; there was no clinical evidence of disease.

c. By August 7, 1951, the patient still was asymptomatic, but a chest roentgenogram showed a large area of disease in the previously irradiated left hilar area. An additional 4,300 r was directed to the midmediastinum.

d. Roentgenogram made April 27, 1954, at which time the patient's general condition remained excellent and no clinical evidence of disease had appeared.

patients' relief is only temporary but may be sufficiently long to warrant use of the agent, particularly when the pruritus is generalized. Roentgen therapy in minimal dosage to the nodular cutaneous infiltrations of Hodgkin's disease also can relieve the localized itching. Generalized pruritus also at times may be relieved by irradiation of deep infiltrations. Chemotherapy offers a more prompt relief, and we have used it before irradiation of localized and symptomatic infiltrations to give the patient respite from sleeplessness and continued irritation of the pruritus. (4) We have used chemotherapy in parenchymal pulmonary infiltrations, but usually with no more than temporary regression of pulmonary fossae. (5) The fever associated with generalized Hodgkin's disease often can be promptly reduced by nitrogen mustard. In such patients we have used it as a preirradiation measure with considerable improvement of the general condition and ability to support roentgen therapy.

It has been our observation that the responsiveness of Hodgkin's disease to nitrogen mustard is shorter lived than to adequate irradiation.

Pain is often a symptom in Hodgkin's disease, and its cause is not readily found by clinical examination alone. Involvement of bone is common and at times may be seen by roentgen examination. As in the common cancer metastasis to bone from breast the pain may long precede roentgenologic evidence of bone disease, and radiation has been given for pain presumed to be in bone when clinical signs point to this. The appearance of bone invaded by Hodgkin's disease is usually that of destruction. However, it may simulate other forms of bone malignancy, both osteolytic and osteoblastic. We have seen spinal fusions done for "back pain" which in reality represented Hodgkin's disease of the vertebrae and could have been diagnosed as such by more careful clinical appraisal. Flank or abdominal pain associated with paravertebral and retroperitoneal pressure from Hodgkin's disease cannot always be demonstrated by palpation or by roentgenologic examination. Gastrointestinal and renal roentgen-ray studies may be helpful in demonstrating displacement of stomach, bowel, or ureter. Pain is at times the first manifestation of Hodgkin's disease, and the diagnosis is made only at laparotomy. In a patient with known Hodgkin's disease such pain usually can be relieved by adequate irradiation to paravertebral and retroperitoneal structures.

Thoracic involvement is most commonly mediastinal lymph node enlargement. Its progression may be slow and even at times asymptomatic. Respiratory embarrassment, however, may become rapidly progressive and call for prompt but cautious irradiation of the mediastinum. The complications are those due to pressure, producing pain and obstruction to the great vessels. Edema of the supraclavicular fossae and later neck, producing the Stokes color associated with severe dyspnea and venous dilatation, is not uncommonly seen. Deviation and compression of the trachea simulating cancer of the thyroid or lung may be noted. Esophageal obstruction by external pressure is likewise seen. Bronchial obstruction with atelectasis may result in a problem simulating cancer of the lung, chronic bronchiectasis with abscess, or tuberculosis. Of interest is the absence of vocal cord paralysis from recurrent laryngeal involvement, as is commonly seen in cancer of the lung and thyroid. Pleural effusion may result either from pressure or pleural infiltration.

In the absence of peripheral lymphadenopathy from which to secure a lymph node for microscopic study, and if the patient is not acutely dyspneic, we prefer to know the pathologic nature of the mediastinal lymph nodes whenever possible. In such a patient a lymph node usually can be secured by the simple surgical procedure of entering the superior anterior mediastinal space through the supraclavicular fossae. Even small lymph nodes of not more than 1 cm. in size so obtained have proved diagnostic. When the patient is acutely dyspneic and no peripheral lymph nodes are removed, we proceed with roentgen-ray therapy and attempt to judge the nature of the adenopathy by the degree of response to irradiation. In general the most responsive are the lymphatic leukemias (in an aleukemic phase diagnosis cannot always be made from blood or bone marrow); the giant follicle lymphomas are the most responsive of the lymphoma group other than the leukemias. Usually lymphosarcoma requires more irradiation than giant follicle lymphoma, but less than Hodgkin's disease. It is rare that later in the disease's course the opportunity does not present to secure tissue for pathologic examination from an accessible lymph node if this has not been possible prior to irradiation of the mediastinum.

Mediastinal involvement by the nature of its visibility by roentgen-ray examination affords a good opportunity to judge both the degree of response and the dose of irradiation required to reduce regression. In treating abdominal and retroperitoneal infiltration one cannot see and follow the results so readily, and the response must be judged by clinical evidence unaided by visualization. This has caused us to re-treat reappearing mediastinal enlargement as long as one year after an initial dose in the mediastinal tumor in excess of 3,000 r, and by addition of 3,000 r to 4,000 r in the mediastinum by the second series. Supervoltage roentgen therapy (800 kilovolts) has per-

mitted us to do this without injury to skin or lung. It can be done with 200 to 400 kilovolts through the selection of appropriate fields of irradiation. These experiences have caused us to use greater doses initially than are more commonly advocated in the irradiation of Hodgkin's disease. We likewise have learned that, unless the whole of the mediastinum is irradiated, there is a likelihood of reappearance of lymph nodes peripheral to the irradiated volume.

We have not successfully irradiated parenchymal pulmonary infiltration of Hodgkin's disease and its associated atelectasis. In 2 patients in whom this was attempted after the failure of nitrogen mustard, both had rapid generalization of the disease, of which the pulmonary involvement was clinically prominent. In neither did it significantly alter the course.

Gastrointestinal manifestations of Hodgkin's disease are important entities. The sites of predilection are gastric and ileocecal. Although the diagnosis of Hodgkin's disease of the stomach at times may be made by roentgenologic methods and aided by gastroscopy, the findings are usually those of exploratory laparotomy. A thick-walled, edematous stomach, with or without associated regional lymph nodes, should cause suspicion of a lymphoma and lead to visualization of the lumen of the stomach at surgery. Exten-

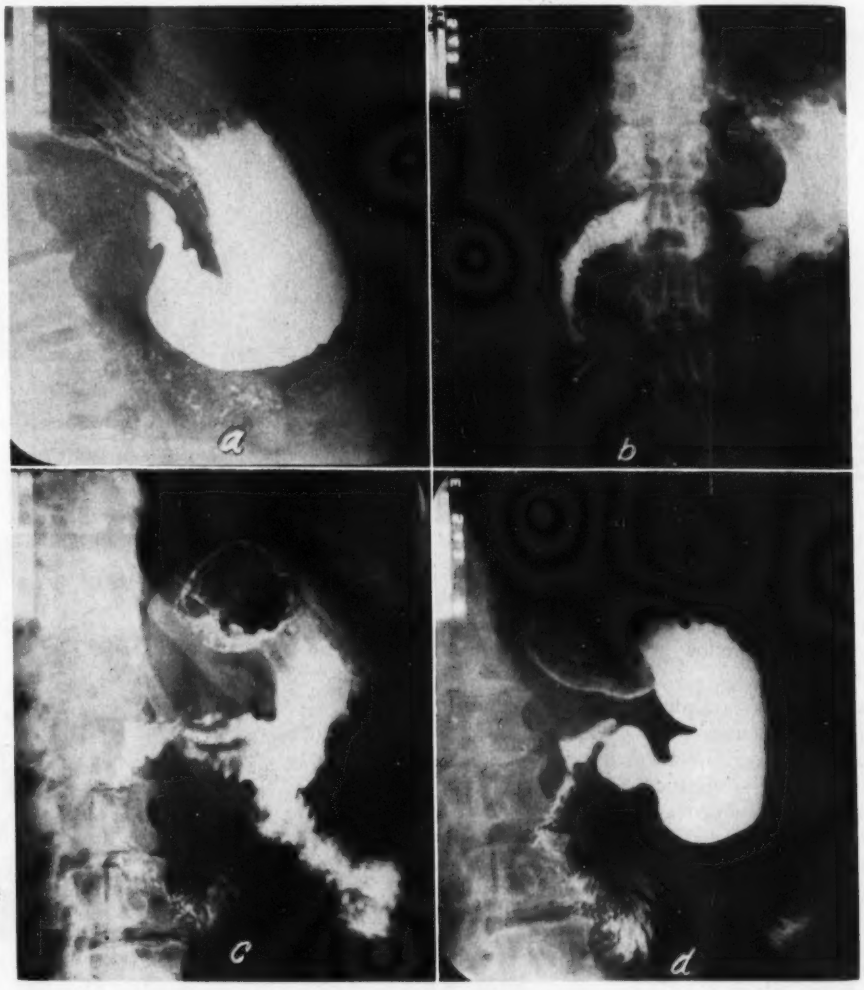

FIG. 5a. Prelaparotomy roentgenogram (May 11, 1948) of a patient thought to have gallstones.

b. Roentgenogram made June 9, 1948, after the laparotomy and after Hodgkin's disease of the stomach had been established by biopsy of tissue removed at operation.

c. A postirradiation film made December 21, 1948.

d. Another postirradiation roentgenogram made October 9, 1951. The patient continued in 1954 to be well after 4,500 *r* of supervoltage irradiation to the stomach.

sive submucosal infiltration with minimal ulceration may be noted. Tissue from the stomach and regional lymph nodes should be secured for examination. The pathologist may be able to confirm the diagnosis by frozen section. Patients with both Hodgkin's disease and lymphosarcoma of the stomach have lived for long periods following gastrectomy when other regional involvement was not present. Depending upon the degree of extragastric disease and the general condition of the patient, one may elect to do a gastrectomy alone or to follow gastrectomy by regional irradiation.

In 1 such patient examined surgically for gallstones (fig. 5) diagnosis of Hodgkin's disease of the stomach was made by tissue removed for study. At surgery no other lymphatic or hepatic lesion was noted. The patient refused gastrectomy and now is asymptomatic after six years following roentgen therapy alone. A dose of 4,500 r to the stomach was given without complication other than transitory leukopenia. This was done with supervoltage irradiation. Nitrogen mustard in 1 case of Hodgkin's disease of the stomach associated with disease in the liver gave only transitory palliation.

We have not accomplished complete arrest of disease in ileocecal Hodgkin's disease discovered at surgery. The few cases we have seen were associated with abdominal lymphatic spread. Surgical resection (usually for intussusception or obstruction) followed by irradiation has given limited palliation.

In summary, Hodgkin's disease is ubiquitous and should be regarded as such. In its treatment by irradiation our aim is to produce arrest of local regional infiltration whenever indicated by the symptomatology and in the absence of demonstrable generaliza-

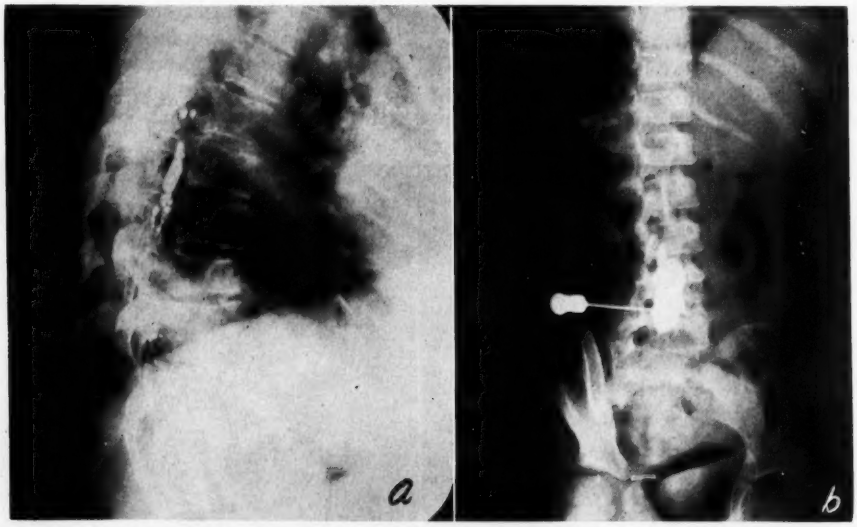

FIG. 6a. Myelogram showing complete blockage in a 59 year old man who had suffered pain in the lower dorsal spine for three months and then sudden loss of motor activity in the lower extremities. Laminectomy was performed; destruction of the involved vertebral segments with extramedullary lymphosarcoma was evident. The patient died suddenly from pulmonary embolism.

b. A child 4 years of age had a tumor of the soft parts in the lower lumbar region which was diagnosed as lymphosarcoma. Two weeks postoperatively the patient developed paralysis of the lower extremities. A myelogram showed complete block. Cord compression was not relieved by roentgen therapy (2,900 r in two weeks). Laminectomy was performed and intraspinal lymphosarcoma observed contiguous with the originally noted lumbar mass. The patient died from pulmonary metastasis five months after onset of the disease.

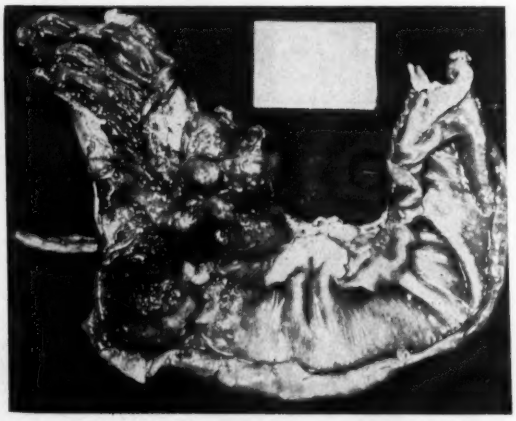

FIG. 7. Acute intussusception of the terminal ileum was observed in a 7 year old child in 1947. Resection of the tumor in the ileum and where it was invading the cecum and of the regional mesentery containing lymph nodes was done. Complete resection of all the gross regional lymphadenopathy was not attempted. Lypmphosarcoma of the ileocecal region with lymphosarcoma in some of the resected lymph nodes was diagnosed. No irradiation therapy was given. The patient was well and asymptomatic in 1954.

tion. When the disease has advanced to involve more than one or contiguous regions, irradiation judiciously used may keep the patient in a reasonably efficient state for periods of several years. There are those who may survive for long periods seemingly controlled. In our experience chemotherapy is a useful adjunct to irradiation, and particularly in cases presenting fever, itching, or anemia or when irradiation is no longer applicable.

LYMPHOSARCOMA

Lymphosarcoma is perhaps more capable than Hodgkin's disease of involving any or all tissues and thus producing clinical manifestations of all degrees of complexity. Although Hodgkin's disease may be seen in childhood, lymphosarcoma is more common than Hodgkin's disease in the early ages. It lacks the phenomenon of pruritis associated with Hodgkin's disease, yet in all other respects it may be clinically indistinguishable. Unlike Hodgkin's disease, it is seen in the accessory nasal sinuses, nasal pharynx, tonsil, and base of tongue—all sites rich in lymphoid tissue. Like Hodgkin's disease, it is found in the stomach and ileocecal region as an apparent primary focus. We have encountered lymphosarcoma infiltrating the rectum and clinically simulating cancer of the rectum. It responds readily to external irradiation with relief from bleeding, pain, and debilitation. That these are not all simple rectal lymphoid hyperplasia is evidenced by 2 cases with other organal involvement by lymphosarcoma. In 1 the initial diagnosis was made at laparotomy for splenectomy, and the other patient later succumbed to gastric lymphosarcoma. In these cases the rectal involvement is no doubt a magnified picture of lesser (or perhaps only hidden) disease throughout the gastrointestinal tract.

Certain forms of lymphosarcoma are relatively benign, as for example the lymphosarcoma of the parotid and lacrimal glands. Lymphosarcoma of the skin (lymphoma cutis) may be relatively benign for long periods. The entity of mycosis fungoides, responsive as a cutaneous manifestation to roentgen-

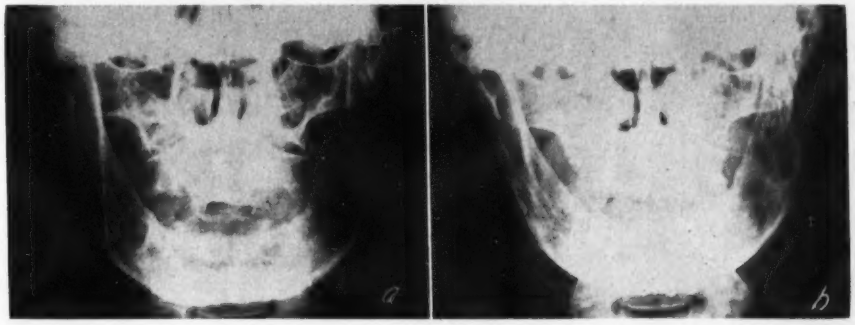

FIG. 8a. Lymphosarcoma of the mandible, evident in the roentgenogram made August 14, 1942, was the presenting disease.
b. This roentgenogram made February 2, 1943, showed bone healing after irradiation. The patient developed lymphosarcoma of the ileum six months later, however, and although this lesion was resected, he died April 4, 1943.

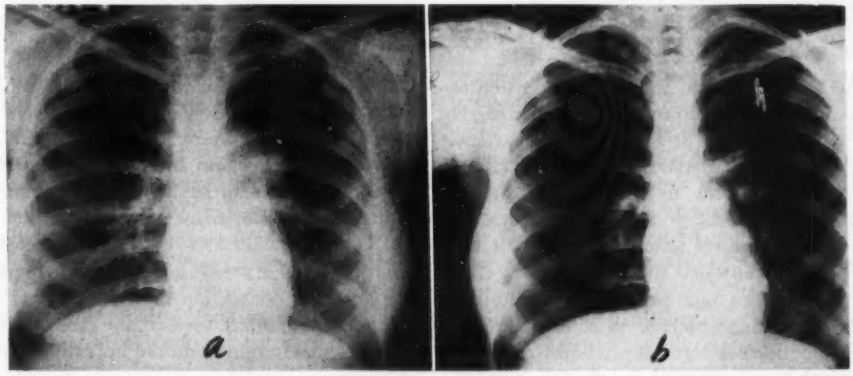

FIG. 9a. Roentgenogram made of a 16 year old girl July 21, 1952, and revealing an entirely asymptomatic mediastinal lymph node enlargement. No peripheral adenopathy, anemia, or other signs were observed. Biopsy of a lymph node obtained from the anterior superior mediastinum was diagnostic of lymphosarcoma. Roentgen therapy, 3,150 r to the midmediastinum, was administered during forty days.
b. The patient was well and without clinical evidence of lymphosarcoma when this roentgenogram was made April 8, 1954.

irradiation, invariably ends by generalized involvement of visceral organs. In other respects lymphosarcoma may be rapidly malignant by widespread infiltration of important visceral organs. In the more slowly developing forms it ends in lymphatic organal and skeletal infiltration. With so many possibilities of clinical forms it is beyond the purview of this discussion to do other than present examples of the disease which are within the scope of irradiation, and in which worth-while and, at times, long palliation may be accomplished.

In children the disease is usually a fulminating one, although we have seen children with lymphosarcoma limited to one peripheral regional group of lymph nodes who, following irradiation, have remained well. Our more common experience is the massive mediastinal or abdominal involvement temporarily regionally controlled by irradiation, but with progression to lung and other organs. Intraspinal lymphosarcoma with cord paralysis (fig. 6 b) has been encountered but with later pulmonary spread. In all of these more massive forms in children, irradiation used cautiously will afford some relief of pressure and add to an all too brief span of life. In our experience it has not controlled the total disease.

We call attention to one particularly interesting form of lymphosarcoma observed in childhood (fig. 7). This is the ileocecal lymphosarcoma in which both grossly and microscopically the disease is indistinguishable from the more clinically highly malignant forms, and yet, following resection, may permit an unexpectedly long survival. In the case cited we did not follow resection with irradiation despite the presence of removed regional lymph nodes, pathologically indistinguishable from lymphosarcoma. Dr. Paul Lund, pathologist of the Swedish Hospital, has called attention to this unusual lesion from other similar cases which he has observed.

In the adult, lymphosarcomas of the stomach or ileocecum may be at times a primary and solitary form. They represent the bona fide reported cases of long survival following resection. We have seen these forms only in association with regional or more advanced disease and treated them both by irradiation alone and by surgery and irradiation. In 1 patient with ileocecal involvement found at laparotomy for obstructive intussusception and with regional lymphatic spread, resection and irradiation gave symptomatic relief from the abdominal disease until the patient died five years later from pulmonary infiltration. Also of interest in this respect is the patient (fig. 8) with the presenting disease as a destructive lesion of the mandible which was responsive to irradiation. Six months later he developed intestinal obstruction from a lesion in the ileum, which on resection was found to be lymphosarcoma and similar histologically to the tissue removed from the mandible. The patient died of other abdominal spread.

As in Hodgkin's disease the initial complaint may be due to the destruction of bone (fig. 8). In later and more generalized disease bone rarely escapes some degree of infiltration that does not add to the clinical problem.

Massive peripheral lymphadenopathies of lymphosarcoma are not uncommon but in our experience are only prodromal to a rather fulminating general-

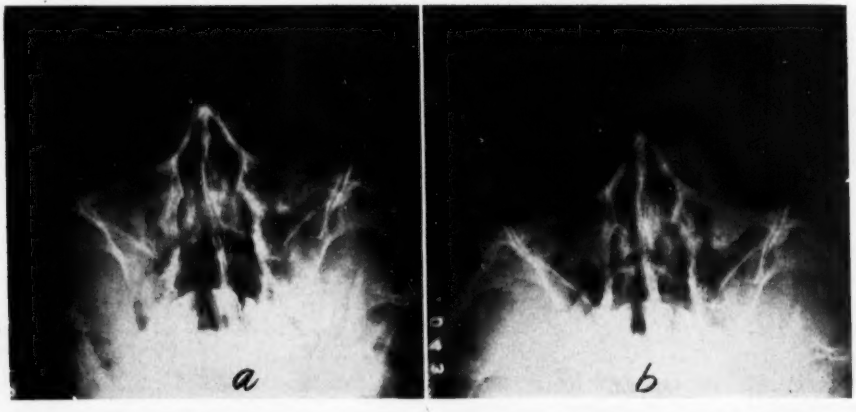

FIG. 10a. A 42 year old man suffered rapid swelling of the right side of the face for three months. Tissue obtained by incision through the tumor of the facial soft parts on the right was diagnosed as lymphosarcoma. A roentgenogram made October 23, 1950, showed a defect in the lateral inferior wall of the left antrum secondary to a shrapnel wound. Opacity of the right antrum with partial destruction of the medial, lateral, and anterior walls was evident. Tumefaction of the soft parts was palpable through the upper right gingival buccal sulcus. Roentgen therapy was applied, 800 kilovolts, 4,800 r minimal throughout the right maxillary region in forty-nine days.

b. A roentgenogram March 29, 1952, showed bone regeneration of the medial and lateral walls with aeration. The status of the patient was unchanged by 1954.

ized disease. As in Hodgkin's disease, mediastinal lymph node enlargement is common, and here also we have resorted to exploratory surgery of the superior anterior mediastinum to secure lymph nodes for diagnosis when peripheral lymph nodes were not available (fig. 9).

Lymphosarcoma of the tonsil, unilateral or bilateral, may be encountered as a primary complaint. In our experience it is more often seen in the elderly, producing a painless obstruction to swallowing, and may or may not be associated with cervical lymph node involvement. Although we have irradiated these patients sufficiently to produce complete regression of the tonsillar and lymph node masses, none have survived later visceral lymphosarcoma. The same sequence of events has followed the lymphosarcomas of the nasopharynx which we have irradiated. One patient with massive involvement of a maxillary sinus with bone destruction (fig. 10) has had apparently complete arrest of this seemingly primary focus for a period of four years. Despite a pathologic fracture in one rib two years after the original therapy, which was likewise irradiated, the patient's general condition still remains excellent. Later complications are anticipated.

In the irradiation of lymphosarcoma the volume of tissue irradiated in general is as large as can be tolerated and consistent with a dose within the involved structures of a minimum of 2,400 r to 3,000 r in three to four weeks. This is somewhat less than we attempt in Hodgkin's disease, but must be varied according to the individual status of each patient. As in Hodgkin's disease, as the patient advances in more generalized lymphosarcomatosis, it is important to give supportive treatment for anemia, fever, and infection and to use irradiation only for those complaints in which it can add to the patient's welfare without detracting from his energies and general condition.

As a striking example of supportive chemotherapy in lymphosarcoma, we may cite 1 case of a man, aged 46, who, three years after irradiation to multiple regional lymphosarcoma, entered a stage of severe anemia associated with massive enlargement of the liver. The patient has been kept going for an additional two years by cortisone; three episodes of severe bone marrow depression have been converted by transfusions and ACTH. During this period he has been able to work and live comfortably. Such a response as Dr. Crosbie has obtained in this patient is not usual, but the individual patient is not interested in statistics.

In relation to the hematologic picture in lymphosarcoma, one always must bear in mind that certain of these patients eventually develop leukemia, which in general has a rather rapidly fatal course.

GIANT FOLLICLE LYMPHOMA

I shall discuss only briefly giant follicle lymphoma, yet it is a syndrome of great interest and importance among the lymphomas. Its importance lies in its relatively benign natural course and the prognosis for many years of life which it may have. The pathologist can readily distinguish the microscopic form and thus initially alert the radiologist to the course which he may anticipate. The disease is also of interest in that it may be found in many and unexpected tissues and be highly susceptible to local control by external irradiation in minimal dosage. One not infrequently sees the patient with a history of painless, peripheral lymph node swelling for years which either may gradually enlarge to produce pressure and pain or later undergo rapid enlargement, finally bringing the patient to the physician. One also learns that the swellings may spontaneously diminish in size as we have observed by following certain cases objectively. Associated with peripheral lymphadenopathy one may find asymptomatic abdominal or hilar masses.

We have seen the disease on the cervix associated with cervical, inguinal, and hilar lymph node enlargement, but in a patient who initially sought help for pain in the mandible which was due to infiltration of bone by giant follicle lymphoma. She has since received irradiation to multiple fossae of skeletal, abdominal, thoracic, and cutaneous involvement, and yet six years after the onset of the disease remains in a relatively efficient condition. A patient, aged 72, treated in 1939 for a massive unilateral, cervical lymphadenopathy of giant follicle lymphoma, returned thirteen years later with the disease involving the nasopharynx and palate, and these were likewise controlled by irradiation. At age 87, he may still die of senility rather than lymphoma. A patient treated in 1938 for a large cervical mass died in 1952 under our care with extensive skeletal involvement by giant follicle lymphoma. For the majority of the intervening years she had lived comfortably.

As in the other lymphomas we do not attempt to irradiate all manifestations of involvement by giant follicle lymphoma unless they produce symptoms of pressure or pain. Irradiation is for symptomatic relief. The dose required to any one focus may not be more than 1,000 r to 1,500 r, and in many instances considerably less.

Giant follicle lymphoma is a disease par excellence for the beginning radiotherapist to establish his reputation among his colleagues, but he must be willing to accept the clinical care and repeated irradiation over periods of years which certain of these patients will require. He also must be willing, if he outlives

the patient, to carry him through a long and difficult end, which may be that of intestinal obstruction, uremia, or bone marrow failure. To a greater degree than lymphosarcoma certain of these patients end with leukemia.

Lastly (and it pertains to the management of the lymphomas in general and by whatever therapeutic agent), the physician responsible for the care of the patient must at the outset establish confidence. This he can best do if he discusses with the patient something of the general nature of the disease and assures him that though there may be reappearance of problems later, his condition is one which may receive help for long and unpredictable periods. It is only right to lend this encouragement, and by so doing the physician treats the patient as well as his disease.

ROENTGEN EXAMINATION OF THE UPPER GASTROINTESTINAL TRACT

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THE diagnostic value of the roentgenologic examination of the upper gastrointestinal tract is recognized by the internist, the surgeon, and the radiologist. The general practitioner must be included in this group if this examination is to give maximum benefit to the largest number of people. There is no doubt this examination is the easiest to perform, discommodes the patient the least, costs less, and gives more information concerning the upper gastrointestinal tract than any other modality at our disposal. For this reason the four categories of physicians mentioned should know as much about the technical and interpretive phases of the examination as time will permit them to learn in one lifetime.

There is no more fascinating story in the annals of human endeavor than the discovery of x-ray. The development of this, the most important single method of physical diagnosis, to its present status is a subject for lifetime study to the radiologist. Roentgen's strange phenomenon announced on December 28, 1895, was destined to revolutionize the world. It is one of the ten most important scientific discoveries of all times.

Haschek and Lindenthal[3] in January of 1896, only one month after the publication of Roentgen's article, injected radiopaque material into the brachial artery of a dead body. They made the following observation: "Should it be possible through technical improvement to radiograph other portions of the body, this would open up a new field in diagnosis for the healing of the sick." It was apparent even then that diagnosis is of paramount importance if one is to heal the sick.

Hemmeter[4] in 1896, less than one year after Roentgen's original article, said: "I do not consider the use of the Röntgen method on account of its complexity and long duration of exposure as practical for determining the size and location of the stomach." Many men deserve credit for the remarkable advances in the examination of the gastrointestinal tract. Dr. Cannon[2] as a first year student at Harvard Medical School began his work on the upper gastrointestinal tract within a year of Roentgen's announcement of his discovery.

Physicists and engineers are responsible for the technical improvements which permit the diagnostic accuracy this examination now enjoys. One does not need to know all of the details regarding the structure of the roentgen apparatus. The details of the conduct of the examination, however, should be known to those who propose to perform it. Such information is usually given as generalizations and specific details are difficult to find. The real purpose for this paper is to discuss step by step one method of performing the "G I series."

There are three phases of the upper gastrointestinal tract examination which must be considered, namely, (1) technical performance of the examination, (2) recognition of abnormality, and (3) interpretation of abnormal findings.

The technical performance of the examination is the most important, since if it is inadequate, the last two will not be adequate. The acquisition of visual dexterity to observe the abnormality requires several years' experience and many mistakes. The ability to ascertain the exact nature of the lesion together with its histologic pattern is never adequately achieved, nor indeed is it always necessary. Since the technical aspects of this examination are inadequately performed by most physicians including many radiologists, I will dwell on this aspect of the problem.

Read as part of a symposium on lesions of the upper gastrointestinal tract before Section B (Surgical), Texas Medical Association, Annual Session, San Antonio, May 5, 1954.

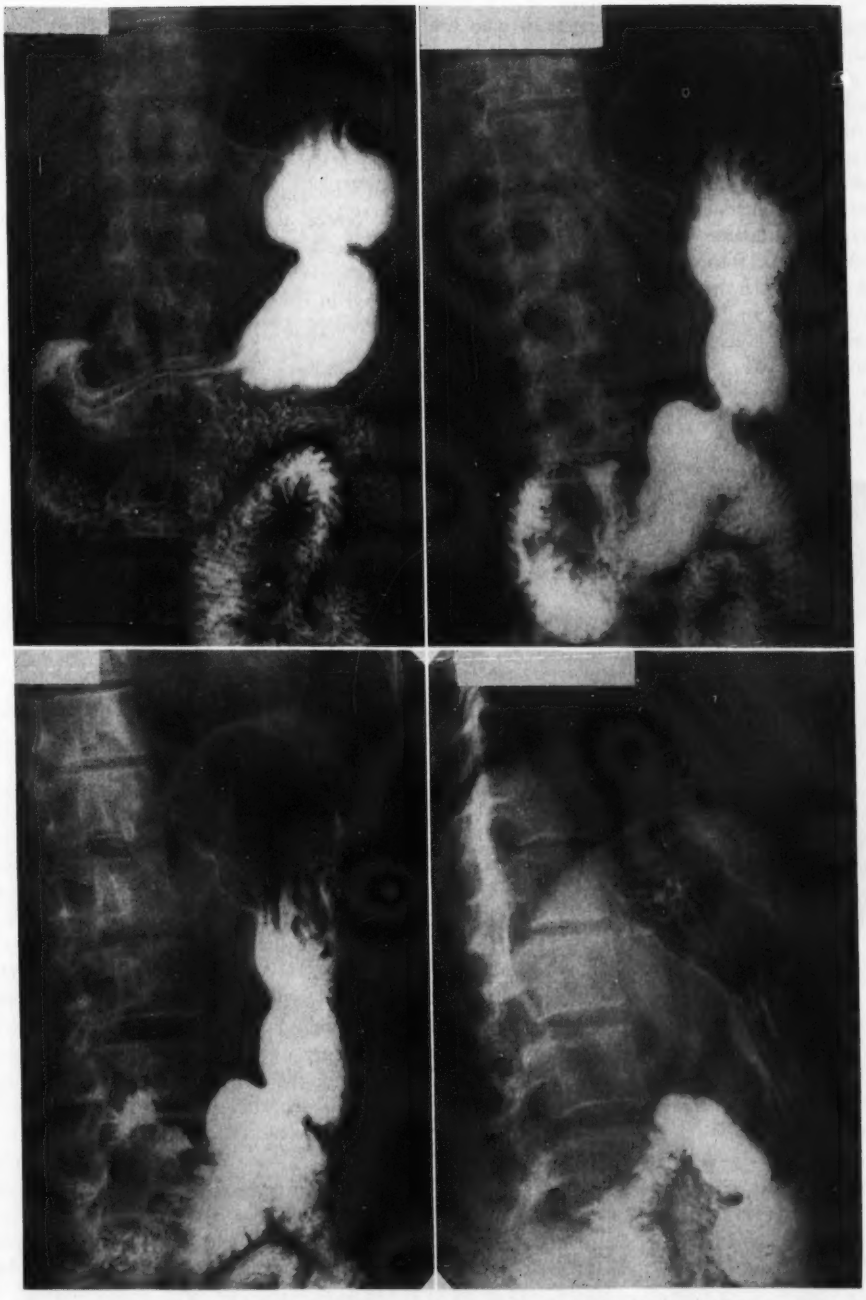

FIG. 1. Four roentgenograms made at the beginning of an examination of the upper gastrointestinal tract: a postero-anterior film *(upper left)*, two films of different obliquity *(upper right* and *lower left)*, and a right lateral film *(lower right)*.

TECHNIQUE

At 8 o'clock in the morning the patient who has had nothing by mouth since midnight is given 4 ounces of a mixture containing one part barium and two parts water. Within two minutes after the ingestion of the barium a series of four 10 by 12 inch films is started. After a straight postero-anterior film of the stomach, two films of different obliquity are made with the right side of the patient down, and then a true right lateral film of the stomach is obtained. After these four films are made, the patient is placed supine for a moment. The right side is then elevated about 15 to 30 degrees and the anteroposterior film of the stomach is made. All of these five films should be obtained in less than ten minutes from the time the patient ingests the barium. If the duodenal bulb does not fill during the course of this series of films, one may presume that pylorospasm

FIG. 2. An anteroposterior roentgenogram showing double contrast of the stomach and duodenal bulb.

or some other abnormality of the pyloric canal or the duodenal bulb exists.

Figure 1 shows the four films which are obtained initially. One notes that the mucosal folds throughout the stomach and duodenal bulb are well visualized since the proper amount of barium has been used. If one completely fills a hollow viscus with radiopaque material, one is likely to miss even a large lesion in this viscus. Too much barium in the stomach, therefore, will cause one to overlook many lesions. No more than 4 ounces of barium mixture should be placed in the stomach at any time. A measuring cup should be available and the technician instructed to have 4 ounces of barium in the cup. Figure 2 shows the anteroposterior film with double contrast of the stomach and the duodenal bulb. The barium gravitates to the fundus of the stomach and outlines the fundus well.

Immediately following these films, eight views of the distal end of the stomach and duodenal bulb are obtained on two 10 by 12 inch films. This is done by means of a polygraph board. This easily made simple device is of great importance in the performance of the examination. This board is a piece of lead which may be encased in plywood if desired, in the center of which a 5 by 6 inch aperture is cut. This piece of lead should be as wide as the table top and should be about 24 inches long. The patient is placed in the prone position on the polygraph board or "polyboard" as the technicians frequently call it. The technician should attempt to place the duodenal bulb over the 5 by 6 inch rectangular aperture as nearly as he possibly can. Then with the aid of the fluoroscope the duodenal bulb is placed directly in the middle of the polygraph aperture. The patient is turned to the desired obliquity and then turned flat in order to ascertain that the duodenal bulb and the distal end of the stomach will remain within the aperture during these maneuvers. The patient is then placed in the oblique projection and asked to remain in this position until four exposures of the duodenal bulb are made on one 10 by 12 inch film. This is accomplished by moving the cassette in the cassette tray beneath the table in such a manner that the four quadrants of the 10 by 12 inch film are placed beneath the aperture of the polygraph board. This is a simple technical procedure and is quickly mastered by the technician. The patient then rolls to the prone position and a second polygraph is obtained. If this procedure has been done correctly, the duodenal bulb and distal end of the stomach still will be within the aperture, since this has been tested with fluoroscopic control. Here on two 10 by 12 inch films the most vital area of the gastrointestinal tract is obtained with eight exposures in two different projections.

The total elapsed time thus far should be no longer than twenty minutes. If it is necessary to add more barium for the polygraphs, the person doing fluoroscopy will see this need immediately and ask the patient to take 2 ounces.

Moving the cassette for the polygraphs in the bucky tray may require a little experimentation by the technician. Since most trays are not quite long enough it may be necessary to move the entire tray a slight amount after two exposures have been made at one end of the film. Accurately to place one quadrant under the aperture in the polygraph board a block of wood cut to the proper width may be placed next to the cassette in the tray and the lock engaged. On the second exposure if the block of wood is placed

on the other side of the cassette, the second quadrant will be in proper position.

Figure 3 shows one polygraph of the duodenal bulb and distal end of the stomach obtained by this technique.

These seven 10 by 12 inch films are processed and are available for inspection within an hour of the time the last film is made. Fluoroscopic examinations are started at 10 o'clock about two hours after the ingestion of the barium. Much of the disease that is found in the upper gastrointestinal tract thus will be already apparent to the person who is to do the fluoroscopy. There may be some criticism that one who sees the roentgenograms before the fluoroscopy will be prejudiced. This challenge implies that the fluoroscopist does not examine all areas with equal care. There should be a reasonable routine for the fluoroscopic examination of the upper gastrointestinal tract. After this routine has been accomplished the fluoroscopist should concentrate on the area which may be in question from an objective inspection of the films. I am glad to be criticized for examining certain areas more in detail since this has saved many repeat examinations which have to be done when the fluoroscopic examination precedes the radiographic examination. The screen examina-

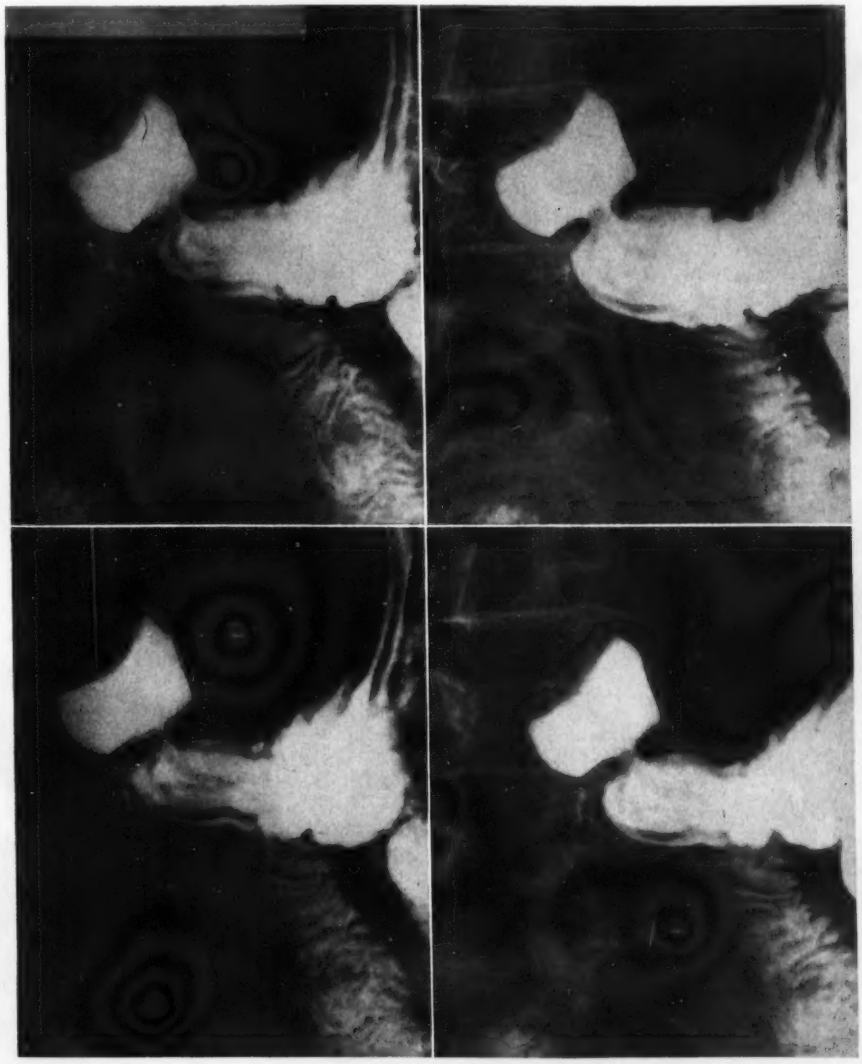

FIG. 3. One of two polygraphs of the duodenal bulb and distal end of the stomach. This series was made with the patient in an oblique position. A second series of four pictures on a single 10 by 12 inch film is made with the patient prone.

tion immediately gives more information concerning the physiology of the upper gastrointestinal tract than is obtained with antecedent fluoroscopy. Most of the small bowel will be visualized at this time some two hours after the administration of the barium. If any retention is present in the stomach, this can be noted and its significance evaluated. At the time of fluoroscopy again only 4 ounces of barium is permitted in the cup.

During the screen examination one should be able to obtain spot films of what is seen. It is also desirable to have pressure spot films. Many physicians who do the gastrointestinal tract examination do not have a spot film device, and most of those who do, have inadequate devices. This spot film device should be used to confirm what one sees or what one thinks one sees during the screen examination. I do not believe that one should talk about a lesion he has seen fluoroscopically unless he can demonstrate it on film. It seems impractical to obtain spot films of the entire gastrointestinal tract. If there is any suggestion of abnormality in an area, one should not hesitate to obtain as many spot films as seems reasonable.

The stomach is usually empty at the beginning of fluoroscopy. The patient is asked to take a small swallow of barium and this is watched from the time it enters the mouth until it enters the stomach. This swallow is usually taken with the patient facing the

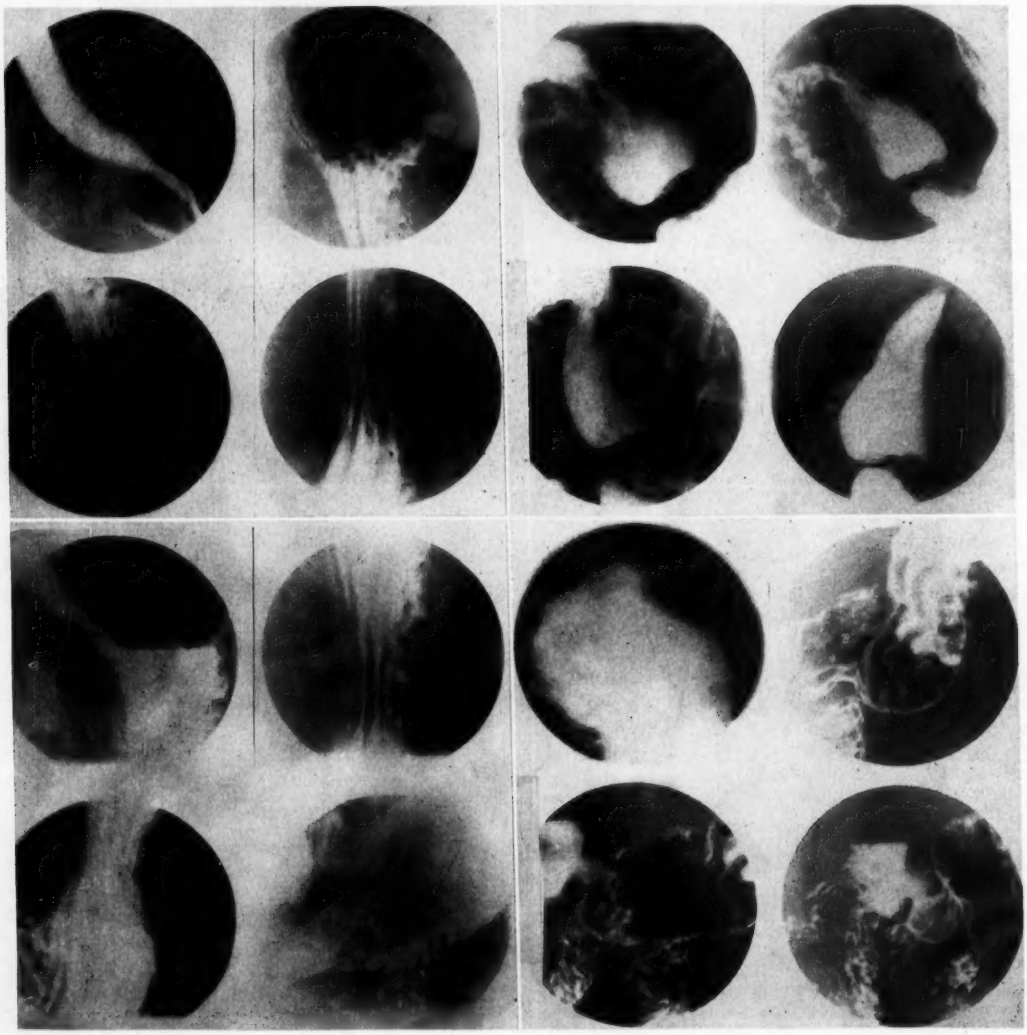

FIG. 4. Spot films of the esophagogastric junction, the stomach, and the duodenal bulb made during the fluoroscopic examination.

fluoroscopist. The patient is then turned into a right anterior oblique projection and a second swallow is observed as it passes through the mouth, the pharynx, and the esophagus. The detail of esophageal visualization is so good that films are not obtained unless there is an indication from the clinical story or from the fluoroscopic visualization. The patient is examined by fluoroscopy in the upright and horizontal positions. In fact it is routine to place the head down slightly and observe whether or not a hiatus hernia can be seen. Various maneuvers are used to try to visualize a hiatus hernia. If such a hernia is suspected clinically, polygraphs of the esophagogastric junction are obtained in the same manner as those which are obtained of the duodenal bulb. The only difference is that a thick barium paste is used so that it will stick in the esophagus. Figure 4 shows a series of spot films of the esophagogastric junction, the stomach, and the duodenal bulb that are usually obtained as a routine.

FIG. 5. Final roentgenogram of the examination showing a postero-anterior view of most of the small bowel.

After the fluoroscopic examination a 14 by 17 inch film of the abdomen made postero-anteriorly is obtained. This can be made immediately after the fluoroscopic examination, but it is desirable to wait about thirty minutes. The patient is given an additional 2 ounces of barium before this film is made. By this technique the barium given originally in the morning is usually in the terminal ileum, the cecum, and ascending colon. That given during the screen examination is filling the jejunum. Since information concerning the retention of barium already has been obtained during the screen examination another 2 ounces is given in order to obtain an additional film of the stomach. This film is made slightly high to show the diaphragm. On this film have been seen many hiatus hernias which were missed during the entire series of films and during the screen examination. Hence, it is advisable to take the film high enough to show the fundus of the stomach and the esophagogastric junction.

The entire course of this examination usually consumes about three hours of the patient's time and hardly ever more than four hours. For survey purposes the small bowel examination obtained on the 14 by 17 inch film is usually adequate. If there is a clinical indication, however, a 14 by 17 inch film should be obtained every hour until the cecum is visualized. I see no purpose in returning the patient for further films, and certainly the twenty-four hour film so frequently made does not have enough value to warrant the patient's return.

Figure 5 shows the 14 by 17 inch film made at the end of the examination with a fairly good visualization of most of the small bowel.

SUMMARY

A brief history of the development of the upper gastrointestinal tract examination is given. Its paramount importance in diagnosis of lesions of the upper gastrointestinal tract is stressed. Technical details for performing an adequate upper gastrointestinal tract examination are given. A technician following instructions given in this presentation can produce a set of roentgenograms adequate for interpretation by anyone competent to do so.

REFERENCES

1. Buckstein, J.: Digestive Tract in Roentgenology, Philadelphia, J. B. Lippincott Co., 1948.
2. Cannon, W. B., and Moser, A.: Movements of Food in Esophagus, Am. J. Physiol. *1*:435-444, 1898.
3. Haschek, E., and Lindenthal, O.: Ein Beitrag zur praktischen Verwerthung der Photographie nach Röntgen, Wein. klin. Wchnschr. *9*:63, 1896.
4. Hemmeter, J. C.: Photography of Human Stomach by Röntgens Method; Suggestion, Boston M. & S. J. *134*:609, 1896.

Baylor University Hospital.

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PEPTIC ULCER IN CHILDREN

LESLIE L. LEMAK, M. D.; PALMER E. WIGBY, M. D.; and JOHN E. MARTIN, M. D., Houston, Texas

THERE is ample evidence of peptic ulcer in children, as is well indicated by numerous articles in the literature on the subject. The purpose of this paper is to present 6 cases of peptic ulcer in children. Etiology and pathology are not considered in detail. These 6 cases demonstrated roentgen evidence of the disease on initial examination. A follow-up of 2 of these cases is presented. One case showed complete clearing of the disease, both clinically and on roentgen examination. The other case showed roentgen evidence of persistence of the disease despite intensive medical therapy.

CASE 1 (fig. 1).—A. G., a 10 year old girl, offered the chief complaint of vague pain in the abdomen. The history showed that she had been somewhat nervous and irritable the past few months and was finicky about her food. Initial examination on November 6, 1953, showed duodenal ulcer; a second examination November 23 showed no evidence of ulcer.

CASE 2 (fig. 2).—P. B. was a 10 year old girl whose chief complaint was pain in the stomach for three weeks. Past history showed she had had a dietary problem for two years. She would vomit on occasions when upset. Initial roentgen examination on October 29, 1953, showed a deformity of the duodenal cap with a duodenal ulcer. The condition was still in evidence November 28.

The following four cases show roentgen evidence of duodenal disease. Follow-up studies have not been made as yet.

CASE 3 (fig. 3).—C. A. G., 7 years old, presented a history of pain in the stomach for two years, and vomiting the week prior to examination.

CASE 4 (fig. 3).—P. I., 10 years old, offered the chief complaint of pain in the lower part of the abdomen. The patient would have attacks about once a day, lasting from two to four hours. The first examination was February 12, 1954.

CASE 5 (fig. 4).—D. S., 10 years old, presented as the chief complaint pain in the upper part of the abdomen. The patient was a very nervous child and had morning nausea with occasional vomiting. The initial examination was February 2, 1954.

CASE 6 (fig. 4).—D. C., 12 years old, had pain in the epigastrium. Nausea and vomiting occurred every day for a week prior to examination.

An interesting parallel of the first 2 cases is the psychosomatic background. Both girls were nervous and irritable on initial examination, whereas only the second patient showed no change in her personality on the follow-up examination. The longstanding history of the second patient as to dietary habits and maladjustments to her family problems indicate the psychosomatic element. This girl probably would benefit more from psychiatric care. The first girl's symptoms and roentgen evidence of disease were relieved by medical management and possibly may have had a dietary cause.

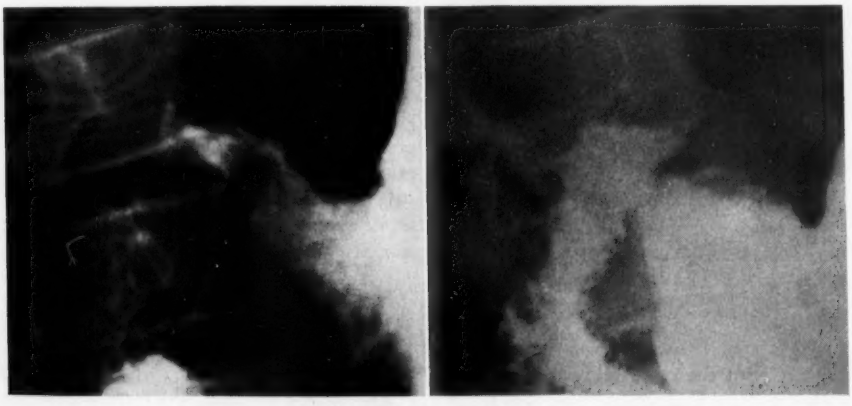

FIG. 1. Case 1. Evidence of duodenal ulcer in a 10 year old girl in a roentgenogram made November 6, 1953 *(left)*, has disappeared by November 23 *(right)*.

DISCUSSION

Peptic ulcer in infancy (newborn to 2 years of age) may have an acute onset with minimal premonitory signs. The majority of the lesions in this age group either bleed profusely or perforate. The literature we covered showed that there was no consistency in the symptoms of children with this dis-

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ease. Bird and his co-workers have shown that in early infancy the ratio of gastric to duodenal ulcers is approximately 2 to 1. We found this even higher in a review of 18 cases of peptic ulcer in 6,500 admissions in Children's Hospital of Michigan in Detroit in 1950. In children older than 2 years duodenal lesions occur from three to five times more often than gastric ulcers. Bird also found that bleeding, perforation, stenosis, and pain, in that order of frequency, may be expected in patients younger than 2 years. After the age of 2 years the evidence of bleeding and perforation diminishes and symptoms are more in line with those of chronic duodenal ulcer in the adult. The symptomatology in peptic ulcer in children, in general, follows a less distinct pattern than in the adult.

The most frequent complaint as reported by Jenkins was vague upper abdominal pain in the great majority of 80 cases. This also was the predominating complaint in the cases we are presenting.

In Alexander's series, 3 of the patients previously had been operated upon for appendicitis (as reported by Dr. R. H. Morgan). In these 3 patients the episodes of nausea and vomiting were frequently severe and the anorexia was sufficiently prolonged to produce weight loss.

The differences in the symptom complex between ulcer in childhood and in the adult might be due to the fact that the erosion of the ulcer in childhood is usually shallow and superficial, whereas in the adult it is undoubtedly deeper and frequently penetrates or perforates. This is obvious when one considers the comparative anatomy of adults and children. In children and infants the stomach wall is thinner and the ulcer naturally more shallow. In adults the greater thickness of the stomach would allow for a deeper ulcer crater and therefore more chronicity of symptoms before perforation.

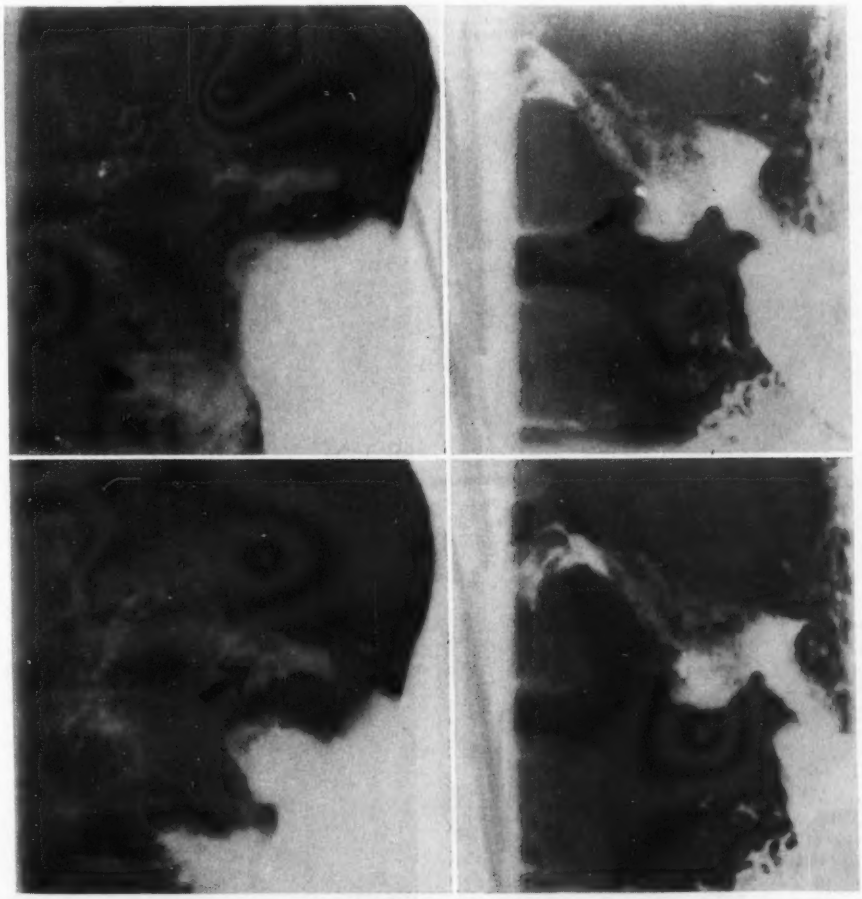


FIG. 2. Case 2. Deformity of the duodenal cap with a duodenal ulcer in a 10 year old girl, evident upon initial examination October 29, 1953 *(left)*, continues to show on roentgenograms made November 28 *(right)*.

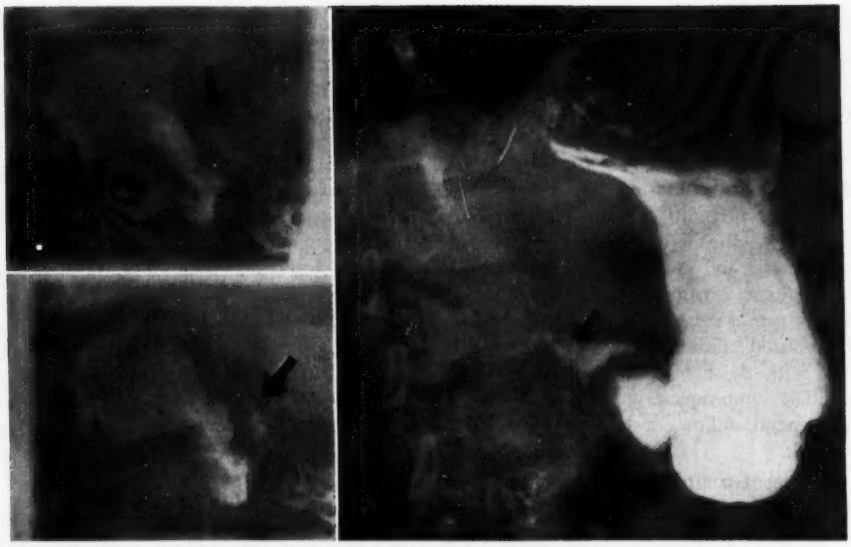


FIG. 3. Cases 3 and 4. Evidence of ulceration in a 7 year old patient in films made March 23, 1954 *(left)*, and in a 10 year old patient in a film made February 12, 1954 *(right)*.

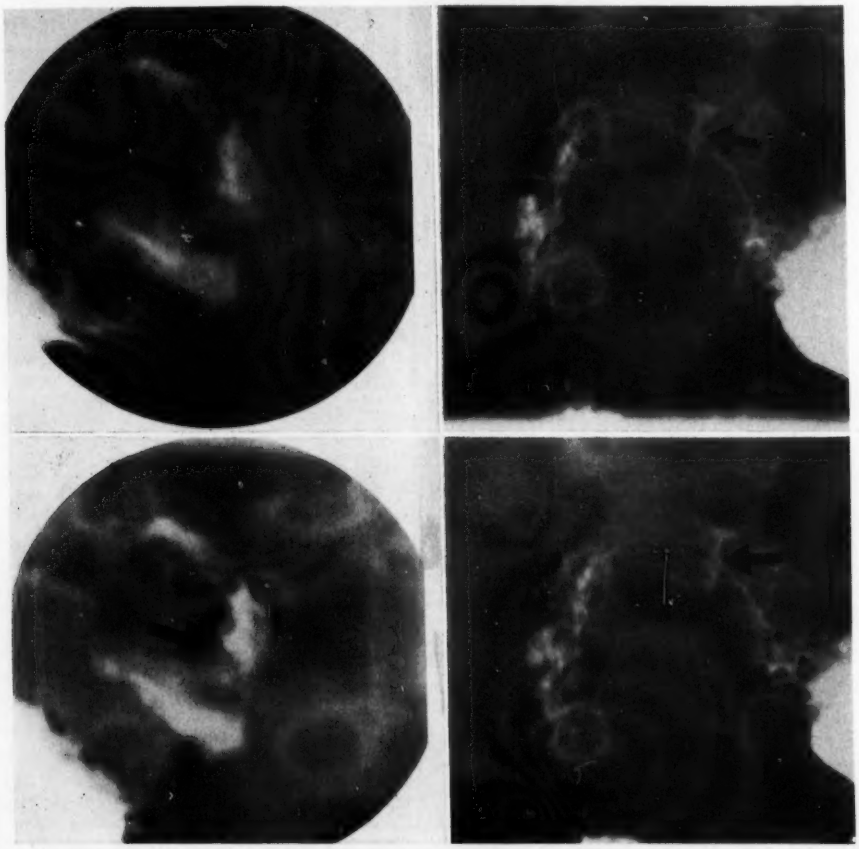


FIG. 4. Cases 5 and 6. Evidence of ulceration in a 10 year old child in roentgenograms made February 2, 1954 *(left)*, and in a 12 year old child in films made January 11, 1954 *(right)*.

The diagnosis of peptic ulcer in children is primarily a roentgenologic procedure with the technique similar to that used in adults. Difficulties in the examination, however, will be frequently encountered from the standpoint of patient cooperation. We believe that spot films are necessary, but they sometimes are difficult to obtain. It is probable that a good many duodenal ulcers in children have been missed in the past because the examiner failed to obtain spot films. Another reason why the usual care in examination is not exercised is that some examiners do not realize that there is a relatively high occurrence of peptic ulcer in children and so do not go to the trouble of making a careful examination, including spot films. All of the illustrations in this paper are based on spot film demonstrations of the ulcer crater.

REFERENCES

1. Alexander, F. K.: Duodenal Ulcer in Children, Radiology *56:* 799-811 (June) 1951.
2. Bird, C. E.; Limper, M. A.; and Mayer, J. M.: Surgery in Peptic Ulceration of Stomach and Duodenum in Infants and Children, Ann. Surg. *114:*526-542 (Oct.) 1941.
3. Jenkins, A.: Peptic Ulcer in Children, Texas State J. Med. *48:*768-771 (Nov.) 1952.
4. Lemak, L. L.: Roentgenological Manifestations of Gastroduodenal Ulceration in Newborn, Am. J. Roentgenol. *66:*191-199 (Aug.) 1951.

Dr. Lemak, 613 Medical Arts Building.
Dr. Wigby, 506 Hermann Professional Building.
Dr. Martin, 613 Medical Arts Building.

ABSTRACT OF DISCUSSION

DR. A. G. BARSH, Lubbock: In discussing duodenal ulcers in children, I will give primarily my experience, which has been in examining a relatively large number of children from the ages of 4 to 12 years for possible duodenal ulcer since the pediatricians referring work to me have been rather conscious of that possibility. In a report in 1952, Dr. Arthur Jenkins[3] referred to 85 positive cases of duodenal ulcers. It was my privilege to do most of these examinations.

I find that the differential points for the diagnosis of duodenal ulcers in children vary some from adults in that the deep ulcer niche is not observed as it is in adults in most cases. There is an occasional perforating type of ulcer, but most of the cases are superficial ulcers. The proof of the presence is primarily in finding the ulcer and, after a course of treatment, in a reexamination being negative. Obviously, autopsy reports are not available for proof of the diagnosis. I find too that the mobility of the small child's intestine is such that the retention of barium in superficial craters is relatively more difficult than in adults. The matter of cooperation on the part of the patient also makes the examination more difficult. It has been my experience that few of these cases have recurrences; I make that comment because of the relatively few reexaminations I do after the patient has once recovered.

I would like to call attention to one youngster who happened to be a pediatrician's only son on whom I made a diagnosis of a duodenal ulcer. This pediatrician was not completely convinced, and the child was reexamined in St. Louis Children's Hospital with confirmation of the diagnosis. Under therapy this youngster recovered; however, the primary part of this therapy was getting the home situation corrected. The father was in military service and the family was moving about with the father; the home situation was very unstable. When the patient was brought back to the permanent family home and kept there under proper care, the duodenal ulcer responded satisfactorily. I make that point because I think we must recognize that the emotional factor in children is probably much more important than any "acid factor" which we consider so important in adults. We do not think of stress and strain in a child in the same terms of that produced in an adult, but we do have it created by psychologic circumstances.

I would like to mention another case of duodenal ulcer in a 7 year old child who had a mother with marked impairment of her hearing. This child had to do the listening for the mother, who could read his lips although she was not able to read the lips of other people. Consequently he was the interpreter for this woman in all her daily affairs in running a home. This put undue strain on the child, as one could readily see, and produced a duodenal ulcer. The correction of this situation has not been so simple.

I am much aware of the possible family conflicts being a causative factor in duodenal ulcers, and I always like to report these to the referring physician if I may sense anything irregular in the conduct of the child in relation to the family or in the misconduct of either parent. I am convinced that the psychosomatic approach in this problem outweighs the organic element as we think of it in the adult case.

I have had one child go on from the original diagnosis of ulcer at the age of 12 years in 1941 to perforation into the pancreas in 1949. He had a partial resection of the stomach and has done well since that date.

NEW USE FOR CORTISONE

Cortisone has been found useful in treating two serious infectious diseases, three articles in the October 2 *Journal of the American Medical Association* reported.

Physicians in Bombay, India, working with an American visiting professor, Dr. Roger A. Lewis, Baltimore, found that cortisone helped reduce spasms, breathing difficulty, muscle rigidity, fever, and deaths from tetanus. The American doctor, a member of the World Health Organization, working with Drs. Rajaninath S. Satoskar, Gopalkrishna G. Joag, Bhalchandra T. Dave, and Jamnauas C. Patel, all of Bombay, treated 20 cases of severe, quick-acting tetanus with cortisone and hydrocortisone. Eight patients survived, and only 3 of 20 similar patients not given these hormones survived, they reported.

Three Philadelphia physicians said that cortisone helped reduce such symptoms as fever, mumps-like swelling, and eye inflammation accompanying sarcoidosis. They reported the most dramatic response to cortisone in patients with swelling and fever, and the response of those with eye infections "was almost equally prompt and striking." They noted that their study may help in finding clues to the cause of the disease. This study was made by Drs. Harold L. Israel, Maurice Sones, and Dick Harrell.

Three Cleveland physicians, Drs. Paul H. Curtiss, Jr., William S. Clark, and Charles H. Herndon, sounded a warning note about prolonged treatment with cortisone and corticotropin. They said they believed bone fractures suffered by 4 patients studied were the result of overlong treatment with the hormones, which tended to remove minerals from the skeleton.

MANAGEMENT OF RECTAL POLYPS

JOHN P. HEANEY, M. D., F.A.C.S., and ASA BEACH, M. D., F.A.C.S., San Antonio, Texas

THERE has been a widespread tendency in the past to rely on the use of roentgen-ray study to determine the presence or absence of polyps in the large bowel and rectum. This tendency has been carried to the point that even simple digital rectal examination is too often omitted. The use of the sigmoidoscope in some institutions has been confined to cases in which the patient had compelling signs and symptoms which pointed to a rectal disorder. These are a sense of incomplete evacuation, tenesmus on defecation, and passage of bright red blood in large quantity either with the stool or immediately after evacuation. Failure to perform an adequate rectal examination either by digital means or by use of the sigmoidoscope has been due in part to lack of appreciation of the limitations of roentgen-ray diagnosis and in part to frank haste and/or laziness on the part of the examiner.

There are accumulating data to make one realize that careful sigmoidoscopic examination should be performed with greater frequency both in the infant[5, 6] and in the adult.[4, 9] Welch[10] has stated that one should not treat a patient with chronic anemia, hemorrhoids, or chronic diarrhea without a careful, complete examination of the entire gastrointestinal tract. This of necessity requires examination of the rectum by means of the index finger and the sigmoidoscope. Still another group of patients should be included in this category, that is, the group of patients with vague, ill defined abdominal symptoms which point to no special anatomic system.

There is further ample evidence to indicate that the yield from careful examination of this type is gratifying in terms of disease detection and cancer prevention. Swinton[9] has noted that in a consecutive series of 150 patients, exactly 15 were found to have benign polyps within reach of the sigmoidoscope. Fifty-two per cent of all polyps of the large bowel are within reach of the standard instrument, according to the autopsy figures presented. These polyps occur in both sexes and at all ages, being slightly more common in adult males. They are true tumors and constitute the source of origin of a high percentage of malignant lesions of the colon and rectum.[9]

If the lesions are dealt with in the precancerous stage, ablation of polyps is simple, whereas if they are left until cancer has developed, necessitating loss of the rectum, the morbidity and mortality are magnified many times.

Boehme[3] in 1950 described a new "suction-cautery" technique for eradication of polyps within reach of the sigmoidoscope. His method is simple but effective and deserves wide adoption. By this method, the dual purpose, metallic suction tip is used to grasp the polyp. Thus held, the tissue is fulgurated with the suction tip which also serves as the electrode. Even when the adenoma is small and sessile, the presence of a well developed, loose submucosal stratum permits the lesion to be pulled away from the wall in such a fashion that a pedicle or fold of normal mucous membrane is created. Instead of applying pressure with the cautery, the lesion is gently drawn into the scope away from the underlying stratum of the bowel wall and fulgurated while in that position. The advancing margin of the zone of electronecrosis can be readily seen as it ascends the pedicle and radiates circumferentially at its base. Smoke is evacuated simultaneously through the suction apparatus. The extent of fulguration can be controlled with great accuracy (fig. 1).

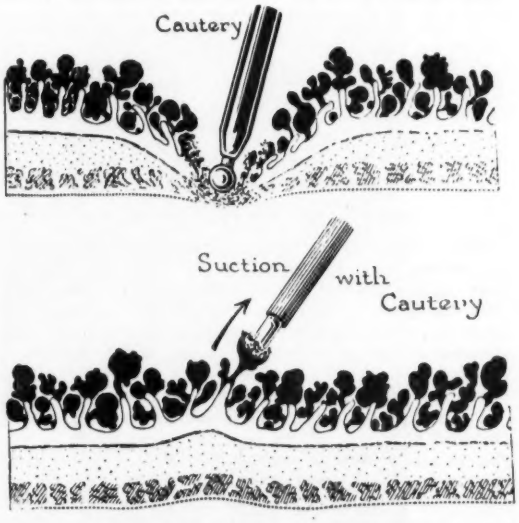


FIG. 1. The upper sketch illustrates conventional ball-point fulguration. Destruction may include adjacent mucosa and bowel wall as the polyp is pushed about by the electrode. The lower sketch shows destruction of a polyp while it is held away from the bowel wall by the "suction-cautery" technique. The apparatus used is an ordinary bronchoscopic suction instrument insulated except at each end by a sheath of plastic or rubber tubing. (After Boehme, E. J.: Surgical Treatment of Familial Polyposis of Colon, Report of Seven Cases, Six in One Family, Ann. Surg. *131*:519-533 [April] 1950.)

Whereas the monopolar current has been used with satisfaction by Boehme and by others,[3, 8] we have used, after work in the animal laboratory, a

bipolar, mixed fulguration and high frequency cutting current. This type of current is stronger in terms of tissue destruction and therefore must be used cautiously. We believe that it is better to destroy a small peripheral zone of normal tissue than to destroy the adenoma incompletely. There is scarcely any danger of bowel perforation when Boehme's technique is employed.

Most polyps of the rectum can be treated by fulguration without biopsy.[9] To us it has seemed simple, with use of appropriate forceps, to obtain a biopsy specimen in order to be certain that the lesion is an adenomatous mucosal polyp. It is then obliterated by means of the technique described. If there are multiple polyps, only one or more of the largest are subjected to biopsy. There is a tendency, however, if one relies solely on the microscopic picture of these lesions, to overgrade them in the malignant direction and recommend unnecessarily radical operative procedures. The gross appearance of the lesion usually will serve to distinguish the adenomatous polyp from the more dangerous villous, papillary type of polyp.[1, 9] This appearance combined with the microscopic picture usually will settle the issue wisely in favor of the more conservative treatment plan.

Electrical ablation of polyps of the rectum in the precancerous stage has been found to be so satisfactory that it is now agreed by most authorities that even patients with familial polyposis of the colon, which is acknowledged to be a 100 per cent precancerous disease, should have a total excision of the part of the large bowel above reach of the sigmoidoscope, followed by an end-to-end ileoproctostomy.[2,3,8] Later, polyps within the rectum are controlled by means of periodic sigmoidoscopic examination and electrofulguration.

SUMMARY

A plea is made for more frequent use of the sigmoidoscope in examination and treatment. The conditions in which this is desirable are listed. An improved technique for the destructon of rectal polyps is presented.

REFERENCES

1. Bacon, H. E.; Lowell, E. J., Jr.; and Trimpi, H. D.: Villous Papillomas of Colon and Rectum: Study of Twenty-Eight Cases with End Results of Treatment Over a Five-Year Period, Surgery *35*:77-87 (Jan.) 1954.

2. Black, B. M., and Hansbro, G. L.: Symposium on Abdominal Surgery; Treatment of Familial Polyposis of Colon, S. Clin. North America *30*:1013-1023 (Aug.) 1950.

3. Boehme, E. J.: Surgical Treatment of Familial Polyposis of Colon, Report of Seven Cases, Six in One Family, Ann. Surg. *131*: 519-533 (April) 1950.

4. Cattell, R. B.: Surgical Treatment of Polyps of Large Intestine Am. J. Surg. *76*:733-747 (Dec.) 1948.

5. Kennedy, R. L. J.: Polyps of Rectum and Colon in Infants and in Children, Am. J. Dis. Child. *62*:481-488 (Sept.) 1941.

6. Paulson, M.: Rectosigmoidoscopy in Infancy and in Childhood—Non-Surgical Procedure; Indications, Instruments, Technic and Appearance of Distal Part of Colon, Am. J. Dis. Child. *52*:1430-1444 (Dec.) 1936.

7. Schaffer, R. C.: Familial Colonic Polyposis; Review of Literature and Report of Four Cases, Am. J. Surg. *84*:477-483 (Oct.) 1952.

8. Smith, N. D., and Hill, J. R.: Multiple Polyposis; Results of Fulguration of Polyps in Distal Portion of Colon After Ileosigmoidostomy and Colectomy, J.A.M.A. *148*:440-443 (Feb. 9) 1952.

9. Swinton, N. W.: Polyps of Rectum and Colon, J.A.M.A. *154*:658-662 (Feb. 20) 1954.

10. Welch, S. C.: Cancer of Colon and Rectum; lecture delivered before Postgraduate Medical Assembly of South Texas, Houston, July 21, 1952.

Dr. Heaney, 1525 Nix Professional Building.
Dr. Beach, 205 Camden Street.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, Fort Worth, April 24-27, 1955. Dr. F. J. L. Blasingame, Pres.; Mr. N. C. Forrester, 1801 North Lamar Blvd., Austin, Executive Secy.

American Medical Association, Miami, Fla., Nov. 30-Dec. 3, 1954. Dr. Walter B. Martin, Norfolk, Va., Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy, New York, Feb. 7-9, 1955. Dr. John M. Sheldon, Ann Arbor, Pres.; Dr. Frances C. Lowell, 65 E. Newton St., Boston, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 4-9, 1954. Dr. Fred D. Weidman, Philadelphia, Pres.; Dr. John E. Rauschkolb, P. O. Box 6565, Cleveland 1, Secy.

American Academy of General Practice, Los Angeles, March 28-31, 1955. Dr. W. B. Hildebrand, Menasha, Wis., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Obstetrics and Gynecology, Chicago, Dec. 14, 1954. Dr. Bayard Carter, Durham, N. C., Pres.; Dr. C. Paul Hodgkinson, 116 S. Michigan Blvd., Chicago 3, Secy.

American Academy of Ophthalmology and Otolaryngology, New York, Sept. 17-24, 1955. Dr. Walter H. Theobald, Chicago, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics. Dr. Roger L. J. Kennedy, Rochester, Minn., Pres.; Dr. E. H. Christopherson, 610 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Atlantic City, N. J. April 24-26, 1955. Dr. Edward S. Welles, Saranac Lake, N. Y., Pres.; Dr. Paul C. Samson, 3959 Happy Valley Rd., Lafayette, Calif., Secy.

American Association of Genito-Urinary Surgeons, Monterey, Calif., May 22-25, 1955. Dr. Fletcher H. Colby, Boston, Pres.; Dr. John A. Taylor, 2 E. 45th St., New York 22, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 8-10, 1955. Dr. Thaddeus L. Montgomery, Philadelphia, Pres.; Dr. F. R. Lock, Bowman Gray School, Winston-Salem, N. C., Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr M. R. Runyon, 47 Beaver St., New York, Executive Vice-Pres.

American College of Allergists, Chicago, April 25-30, 1955. Dr. Homer Prince, Houston, Pres.; Dr. Fred W. Wittich, 423 La Salle Medical Bldg., Minneapolis 2, Secy.

American College of Chest Physicians, Atlantic City, N. J., June 2-5, 1955. Dr. William A. Hudson, Detroit, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut St., Chicago 11, Executive Secy.

American College of Physicians, Philadelphia, April 25-29, 1955. Dr. C. C. Sturgis, Ann Arbor, Mich., Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 11-12, 1955. Dr. Howard P. Doub, Detroit, Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons, Atlantic City, N. J., Nov. 14-19, 1954. Dr. Frank Glenn, New York City, Pres.; Dr. Michael L. Mason, 40 E. Erie St., Chicago 11, Secy.

American Congress on Obstetrics and Gynecology, Chicago, Dec. 13-17, 1954. Dr. R. Gordon Douglas, 116 S. Michigan Ave., Chicago 3, Chairman.

American Congress of Physical Medicine and Rehabilitation, Detroit, Aug. 28-Sept. 2, 1955. Dr. William D. Paul, Iowa City, Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.

American Dermatological Association, Belleair, Fla., April 17-21, 1955. Dr. Richard S. Weiss, St. Louis, Pres.; Dr. J. Lamar Callaway, Duke Hospital, Durham, N. C., Secy.

American Gastro-Enterological Association, Atlantic City, N. J., June 4-5, 1955. Dr. Dwight L. Wilbur, San Francisco, Pres.; Dr. H. Marvin Pollard, University Hosp., Ann Arbor, Mich., Secy.

American Gynecological Society, Quebec, Canada, May 23-25, 1955. Dr. Philip F. Williams, Philadelphia, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Heart Association, New Orleans, Oct. 26-30, 1955. Dr. E. Cowles Andrus, Baltimore, Pres.; Mr. Irving Hexter, 44 E. 23rd St., New York 10, Secy.

American Hospital Association, Atlantic City, N. J., Sept. 19-22, 1955. Dr. Frank R. Bradley, St. Louis, Pres.; Dr. Edwin L. Crosby, 18 E. Division St., Chicago, Executive Director.

American Laryngological, Rhinological, and Otological Society, Hollywood, Fla., March 15-17, 1955. Dr. Kenneth M. Day, Pittsburgh, Pres.; Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Secy.

American Neurological Association, Chicago, June 13-15, 1955. Dr. Percival Bailey, Chicago, Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, W. Sulphur Springs, W. Va., June 2-4, 1955. Dr. Everett L. Goar, Houston, Tex., Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association, W. Sulphur Springs, W. Va., June 19-22, 1955. Dr. J. Warren White, Honolulu, Hawaii, Pres.; Dr. George O. Eaton, 4 E. Madison St., Baltimore 2, Secy.

American Pediatric Society, Quebec, Canada, June 13-17, 1955. Dr. Alfred H. Washburn, Denver, Pres.; Dr. A. C. McGuinness, 237 Medical Laboratory, University of Pennsylvania, Philadelphia 46, Secy.

American Proctologic Society, New York, June 1-4, 1955. Dr. A. W. Martin Marino, Brooklyn, N. Y., Pres.; Dr. Karl Zimmerman, 3500 Fifth Ave., Pittsburgh 13, Secy.

American Psychiatric Association, Atlantic City, N. J., May 4-5, 1955. Dr. Alfred P. Noyes, Norristown, Pa., Pres.; Dr. William Malamud, 80 E. Concord St., Boston 18, Secy.

American Public Health Association. Dr. Hugh R. Leavell, Boston, Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists. Dr. Ralph T. Knight, Minneapolis, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists. Dr. John R. Schenken, Omaha, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan St., Indianapolis 6, Secy.

American Surgical Association, Philadelphia, April 27-29, 1955. Dr. John H. Gibbon, Jr., Pres.; Dr. R. Kennedy Gilchrist, 59 East Madison, Chicago 3, Secy.

American Urological Association, Los Angeles, May 16-19, 1955. Dr. W. Joseph McMartin, Omaha, Neb., Pres.; Dr. C. H. deT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Pittsburgh, Pa., April 14-16, 1955. Dr. Thomas G. Goldsmith, Greenville, S. C., Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. William R. Lovelace, Albuquerque, N. M., Pres.; Dr. Karl Meyer, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association, Milwaukee, May 23-27, 1955. Dr. John H. Skavlem, Cincinnati, Pres.; Mrs. Morrell DeReign, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Los Angeles, Dec. 5-10, 1954. Dr. Eugene P. Pendergrass, Philadelphia, Pres.; Dr. D. S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, St. Louis, Nov. 8-11, 1954. Dr. Alphonse McMahon, St. Louis, Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham 3, Ala., Secy.

Southern Psychiatric Association. Dr. John D. Trawick, Louisville, Ky., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, Hollywood, Fla., Dec. 7-9, 1954. Dr. John C. Burch, Nashville, Pres.; Dr. George Finney, 2947 St. Paul St., Baltimore, Secy.

Southwest Allergy Forum. Dr. Henry D. Ogden, New Orleans, Pres.; Dr. Stanley Cohen, 1441 Delachaise St., New Orleans, Secy.

Southwest Regional Cancer Conference, Fort Worth. Dr. John L. Wallace, Box 1719, Fort Worth, Chm.

Southwestern Medical Association, El Paso, Nov. 17-19, 1954. Dr. Willard W. Schuessler, El Paso, Pres.; Dr. Celso C. Stapp, 800 Montana, El Paso, Secy.

Southwestern Surgical Congress. Dr. Philip B. Price, Salt Lake City, Pres.; Dr. C. R. Rountree, 1227 Classen Drive, Oklahoma City 3, Secy.

Tri-State Medical Society, Texarkana, September, 1955. Dr. William B. Harrell, Texarkana, Pres.; Dr. Karlton Kemp, 408 Hazel, Texarkana, Ark., Secy.

United States-Mexico Border Public Health Association. Mr. Richard F. Poston, San Francisco, Pres.; Dr. Sidney B. Clark, 314 U. S. Court House, El Paso, Secy.

STATE

Private Clinics and Hospitals Association of Texas, Corpus Christi, Dec. 4-5, 1954. Dr. W. R. Swanson, Taylor, Pres.; Dr. John Dupree, Levelland, Secy.

Texas Academy of General Practice. Dr. L. Bonham Jones, San Antonio, Pres.; Dr. Woodson W. Harris, 308 W. 15th St., Austin, Secy.

Texas Academy of Internal Medicine, Galveston, Dec. 11-12, 1954. Dr. Martin S. Buehler, Dallas, Pres.; Dr. George M. Jones, 1314 Medical Arts Bldg., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association. Dr. J. S. Minnett, Dallas, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks, Abilene, Dec. 3-4, 1954. Dr. C. T. Ashworth, Fort Worth, Pres.; Miss Marjorie Saunders, 3500 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Houston, February, 1955. Dr. G. F. Goff, Dallas, Pres.; Dr. Carey Hiett, 815 Fifth Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, Fort Worth, April 24, 1955. Dr. Howard E. Smith, Austin, Pres.; Dr. John Wiggins, 1707 Medical Arts Bldg., Fort Worth, Secy.

Texas Club of Internists. Victor E. Schulze, San Angelo, Pres.; Dr. Charles Darnall, Capital National Bank Bldg., Austin, Secy.

Texas Dermatological Society, Fort Worth, April 24, 1955. Dr. Paul H. Power, Waco, Pres.; Dr. Thomas L. Shields, 1216 Pennsylvania Ave., Fort Worth, Secy.

Texas Diabetes Association, Fort Worth, April 24, 1955. Dr. George M. Jones, Dallas, Pres.; Dr. Hugo Engelhardt, P. O. Box 2180, Houston, Secy.

Texas Division, American Cancer Society. Mr. Travis Wallace, Dallas Pres.; Mr. J. Louis Neff, 1609 Colorado, Austin, Executive Director.

Texas Geriatric Society. Dr. Henry H. Niehuss, Longview, Pres.; Dr. Frank V. Mondrik, 214 Bramlette Bldg., Longview, Secy.

Texas Heart Association, Fort Worth, April 25, 1955. Dr. George R. Herrmann, Galveston, Pres.; Mr. Edgar M. Brown, Jesse H. Jones Library Bldg., 1133 M. D. Anderson Blvd., Houston, Executive Director.

Texas Hospital Association, Houston, April 12-14, 1955. Mr. W. U. Paul, El Paso, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association. Dr. Edgar S. Ezell, Fort Worth, Pres.; Dr. Bruce H. Beard, 1519 Pennsylvania, Fort Worth, Secy.

Texas Orthopedic Association, Fort Worth, April 25, 1955. Dr. Brandon Carrell, Dallas, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Galveston, October, 1955. Dr. M. C. Carlisle, Waco, Pres.; Dr. James N. Walker, 3616 Tulsa Way, Fort Worth, Secy.

Texas Proctologic Society. Dr. Jack Kerr, Dallas, Pres.; Dr. John McGivney, 2202 Avenue L, Galveston, Secy.

Texas Public Health Association, Galveston, Feb. 13-16, 1955. Mr. Ed Riedel, Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, Houston, Jan. 21-22, 1955. Dr. E. F. Lyon, Jr., San Antonio, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association, Fort Worth, April 25, 1955. Dr. Raleigh White, Temple, Pres.; Dr. W. D. Marrs, 306 Broadway, Fort Worth, Secy.

Texas Rheumatism Association. Dr. Alfred W. Harris, Dallas, Pres.; Dr. Charles H. Cornwell, Marlin, Secy.

Texas Society for Mental Health, Mineral Wells, 1955. Dr. Charles N. Burrows, San Antonio, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 3, Executive Secy.

Texas Society of Anesthesiologists, Fort Worth, April 24, 1955. Dr. Frank O. Barrett, El Paso, Pres.; Dr. Milton M. Rosenzweig, 200 Wildwood Dr. E., San Antonio, Secy.

Texas Society of Gastroenterologists and Proctologists, Fort Worth, April 25, 1955. Dr. Charles Hardwicke, Austin, Pres.; Dr. W. T. Arnold, 1402 Hermann Prof. Bldg., Houston, Secy.

Texas Society of Ophthalmology and Otolaryngology, San Antonio, Dec. 3-4, 1954. Dr. John L. Matthews, San Antonio, Pres.; Dr. Gatlin Mitchell, 1604 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Pathologists, Dallas, Jan. 30, 1955. Dr. John J. Andujar, Fort Worth, Pres.; Dr. Lloyd R. Hershberger, Shannon Memorial Hospital, San Angelo, Secy.

Texas Surgical Society. Dr. Dudley Jackson, Sr., San Antonio, Pres.; Dr. Albert W. Hartman, 414 Navarro St., San Antonio 5, Secy.

Texas Tuberculosis Association, Galveston, April 15-16, 1955. Mrs. Joella Terrill Butler, Wichita Falls, Pres.; Miss Pansy Nichols, 2406 Manor Rd., Austin, Executive Secy.

Texas Urological Society, Corpus Christi, Feb. 27-28, 1955. Dr. S. J. R. Murchison, Fort Worth, Pres.; Dr. A. J. Ashmore, 255 Medical Dental Bldg., Corpus Christi, Secy.

West Texas Surgical Society, Dec. 8, 1954. Dr. J. A. Shapira, Midland, Pres.; Dr. Milton J. Loring, 304 North N St., Midland, Secy.

DISTRICT

First District Society, Pecos, 1955. Dr. John W. O'Donnell, Alpine, Pres.; Dr. H. D. Garrett, First National Bldg., El Paso, Secy.

Second District Society. Dr. John R. Mast, Midland, Pres.; Dr. M. J. Loring, 304 North N St., Midland, Secy.

Third District Society, Borger, April, 1955. Dr. M. C. Overton, Jr., Pampa, Pres.; Dr. William Klingensmith, 215 Fisk Bldg., Amarillo, Secy.

Fourth District Society, Brownwood, October, 1955. Dr. James N. White, San Angelo, Pres.; Dr. Joe B. Stephens, Bangs, Secy.

Fifth and Sixth Districts Society, Corpus Christi, July 7-9, 1955. Dr. John J. Sloan, Corpus Christi, Pres.; Dr. E. Jackson Giles, Medical Center, Suite 42, Corpus Christi, Secy.

Seventh District Society, Austin, Feb. 17, 1955. Dr. William McLean, Austin, Pres.; Dr. John Rainey, 1709 San Antonio, Austin, Secy.

Eighth District Society, Galveston, 1955. Dr. George E. Glover, Jr., Victoria, Pres.; Dr. York Lancaster, Port Lavaca, Secy.

Ninth District Society, Houston, March 17, 1955. Dr. Thomas H. Giddings, Brenham, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Medical Society, Port Arthur, Nov. 16, 1954. Dr. John M. White, Port Arthur, Pres.; Dr. Rider Stockdale, Jasper, Secy.

Eleventh District Society, Dr. Porter Bailes, Tyler, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Twelfth District Society. Dr. Neil Buie, Marlin, Pres.; Dr. Paul H. Mitchell, Corsicana, Secy.

Thirteenth District Society, Abilene, March 2, 1955. Dr. Mal Rumph, Fort Worth, Pres.; Dr. Robert D. Moreton, 815 Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society. Dr. J. David Thomas, Denton, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.

Fifteenth District Society, Mount Pleasant, 1955. Dr. R. L. Johnson, Mount Pleasant, Pres.; Dr. R. L. Hardman, Mount Pleasant, Secy.

CLINICS

Dallas Southern Clinical Society, Dallas, March 14-17, 1955. Dr. Lawrence B. Sheldon, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

Central Texas Spring Clinic, Waco. Dr. Ross Shipp, Waco, Pres.; Dr. Milton Spark, 3805 Herwal, Waco, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 24-26, 1955. Dr. John M. Smith, Jr., 205 Camden St., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 7-10, 1955. Dr. Maurice E. St. Martin, Room 103, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. L. N. Simmons, 1518 Tenth St., Wichita Falls, Chairman.

Oklahoma City Clinical Society Conference, Oklahoma City. Miss Alma F. O'Donnell, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas. Dr. Edward T. Smith, 906 Hermann Professional Bldg., Houston, Secy.

State Tumor Conference, Wichita Falls, April, 1955. Dr. Bailey R. Collins, 925½ Scott Street, Wichita Falls, Director.

BOARD EXAMINATIONS

Texas State Board of Examiners in Basic Sciences, Austin. Mrs. Betty Ratcliff, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners, Fort Worth, Dec. 2-4, 1954. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

TEXAS RHEUMATISM ASSOCIATION TO MEET

A day-long scientific session featuring Dr. Joseph J. Bunim, director of the National Institute of Arthritis and Metabolic Diseases, Bethesda, Md., will be held by the Texas Rheumatism Association, December 10 in Galveston. Dr. Alfred W. Harris, Dallas, president of the organization, will preside.

Interested physicians may write the secretary of the Texas Rheumatism Association, Dr. Charles H. Cornwell, Marlin, for additional information.

Medical Expedition Through Africa

The first medical expedition through Africa is being organized by Sabena Belgian Airlines and will last from January 4, 1955, to March 17. The group will be guided by Dr. Neville H. Romain and Dr. Ronald H. Abbott, both of Riverside, Calif. Both physicians have spent many years in Africa, Dr. Romain having been born and reared there. He became a naturalized citizen of the United States in 1945. Dr. Abbott, a member of the American Medical Association, is a fellow of the American and International College of Surgeons and is thought to be the only medical doctor in the United States who is a foundation member of the Association of Surgeons of East Africa. He is the author of "Dark Continent," and has spent fifteen years there as a medical missionary.

The expedition, consisting of a limited number of the medical profession, will visit places of interest in Ethiopia, the Belgian Congo, Kenya, Tanganyika, Rhodesia, and the Union of South Africa, with complete cooperation of the governments and medical associations of each country. They will be shown research centers throughout the continent and will visit field-jungle units of the various areas of Central Africa. Two highlights of the expedition will be an invitational visit to the annual meeting of the East Africa Medical Association at Kampala, Uganda, in January, and at the end of the trip, a specially-arranged seminar at the Institute of Tropical Medicine, Antwerp, Belgium. Information can be obtained through the Sabena Airlines, African Safaris and Research Expeditions, Dallas.

Personals

Dr. George R. Herrmann, Galveston, was a presiding officer of the Second World Congress of Cardiology held in Washington, D. C., September 12-17. He and his associates also presented a paper, "Clinical Studies of Newer Diuretics: Desidron (SU 1775), Dicurin, and Diamox."

Dr. Austin E. Hill, Houston, spoke on the nutritional needs of school children for the American School Health Association, which met as a related organization during the eighty-second annual meeting of the American Public Health Association, October 11-15, in Buffalo, N. Y.

Dr. G. V. Brindley, Sr., Temple, was elected vice-president and president-elect of the American Cancer Society at its October meeting. Dr. Brindley, who will take office as president a year from now, will be the first Texan to serve in that position.

Dr. James N. Walker, Fort Worth, on October 5 was elected governor of the Texas-Oklahoma District of Kiwanis International for 1955. Dr. Walker was lieutenant governor of Division I of the district this year and will be succeeded in that position by *Dr. Joseph L. Guffy,* Hillsboro.

Dr. Marjorie J. Williams, Temple, and Miss Mary P. Clapp, Temple bacteriologist, showed the exhibit "Nocardiosis" at the International Congress of Clinical Pathology in Washington, D. C., in September.

Currently serving as members of the nineteen examining boards in the medical specialties, as reported in the October 2 *Journal of the American Medical Association,* are the following Texans: *Dr. Harvey C. Slocum,* Galveston, American Board of Anesthesiology; *Dr. Bedford Shelmire,* Dallas, advisory member of the American Board of Dermatology and Syphilology; *Dr. Willard R. Cooke,* Galveston, American Board of Obstetrics and Gynecology; *Dr. James T. Mills,* Dallas, chairman of the American Board of Plastic Surgery; *Dr. Truman G. Blocker, Jr.,* Galveston, American Board of Plastic Surgery; *Dr. Robert J. Rowe,* Dallas, American Board of Proctology; *Dr. Jack Kerr,* Dallas, associate member of the American Board of Proctology; and *Dr. Curtice Rosser,* Dallas, member of the advisory council of

the American Board of Proctology; and *Dr. Michael E. DeBakey,* Houston, Board of Thoracic Surgery (an affiliate of the American Board of Surgery).

Dr. Wendell H. Nickell was named president of the newly organized Goodfellow Flying Club at Goodfellow Air Force Base near San Angelo.

Dr. E. L. Clark, Cleburne, spoke to the Cleburne Optimist Club on poliomyelitis at its August 24 meeting.

Dr. E. P. Powell, Centerville, celebrated his seventy-fifth birthday in August at a dinner party for family and a few friends.

Dr. E. D. McKay's mother died at his home in Amarillo September 23. She resided in Oklahoma City.

Dr. Frank P. Sainburg and Mrs. Constance Smith Nance were married August 5 at the home of the bride's parents in Longview, where the couple will live.

Four Fort Worth couples have announced the birth of sons recently: *Dr. and Mrs. J. W. Collier,* September 5; *Dr. and Mrs. Will Horn, Jr.,* July 11; *Dr. and Mrs. William W. McKinney,* August 20; and *Dr. and Mrs. H. W. Thomas, Jr.,* August 12.

Dr. and Mrs. Leo Duflot, Galveston, are parents of a girl born August 17, and *Dr. and Mrs. John L. Jackson,* Wichita Falls, of a girl born in September.

A boy was born August 31 to *Dr. and Mrs. Thomas O. Shindler,* Houston.

Dr. and Mrs. John Witt, Amarillo, are parents of a daughter born September 20.

Pathologists Campaign for Medical Examiners

The Texas Society of Pathologists has begun a campaign to have a system of medical examiners take over the coroner duties now held by the justices of the peace in Texas. The present state coroner law empowers justices of the peace to rule how a person dies and to sign death certificates in cases in which they conduct inquests.

At a meeting in San Antonio the society voted to sponsor a scholarship at the Institute for Forensic Medicine, University of Texas, Austin, with the intention of studying ways to overhaul the state's coroner law. At the society's January meeting in Dallas, a symposium on the campaign will be given.

The society has listed six ways in which murder can fool a layman coroner. These are death by poisoning, murder by suffocation, murder by a hard blow on the back of the head which may leave no external marking if death is not instantaneous and the skin is not broken, murder by drowning, murder by inserting air into the veins, and murder by injecting excessive amounts of insulin into the veins. The pathologists believe that many of the deaths in Texas which are listed as being from "natural causes" have behind them foul play which could be detected by medical examiners but is not discovered by laymen.

Internists Meet in Atlanta

The Texas Club of Internists met November 1-5 in Atlanta, Ga., with the Emory University School of Medicine as host. Approximately fifty members attended the five day meeting. Members of the auxiliary of the group were invited to a buffet on October 31 in honor of the charter members Dr. David W. Carter, Jr., Dallas; Dr. Alvis E. Greer, Houston; Dr. Robert B. McBride, Dallas; and Dr. Charles T. Stone, Galveston. This was the thirtieth anniversary of the Club.

Speakers included Drs. R. Hugh Wood, Dean of the School of Medicine, Arthur J. Merrill, Albert A. Brust, Walter Lyon Bloom, Eugene B. Ferris, J. Gordon Barrow, H. S. Weens, Spalding Schroder, R. Bruce Logue, Osler A. Abbott, Charles M. Huguley, Carl C. Pfeiffer, Walter H. Sheldon, Luther G. Fortson, Morris Tager, Charles A. LeMaistre, and Walter Lynch Bloom.

Also, Drs. Thomas C. Hill, Jr., John H. Peters, Walter H. Thiele, Israel R. Berger, Walter H. Cargill, James C. Crutcher, E. Napier Burson, Ralph B. Hogan, Donald S. Martin, Sidney Olansky, Joseph S. Wilson, Gerald R. Cooper, Edward W. Hook, Milton J. Krainin, James A. Hagans, and Marion M. Brooke, Sc. D., and Libero Ajello, Ph. D., Alfred E. Wilhelmi, Ph. D.

A buffet supper honoring the hosts was given on November 4. Auxiliary entertainment included a one day trip to Ida Cason Callaway Gardens and return trip by way of Warm Springs and a visit to the Little White House, and a tour of points of interest and beauty in Atlanta.

UNIVERSITY OF TEXAS MEDICAL BRANCH

Visitors from foreign countries recently speaking at the Medical Branch were *Dr. A. Francescetti,* Geneva, Switzerland. Director of the Ophthalmology Clinic of the University of Geneva, he gave the annual John McReynolds Lecture in Ophthalmology for 1954, speaking on "Cataract in Relation to Hereditary Skin Disorders," on October 15. *Dr. Francis E. Camps,* professor of forensic medicine at the University of London, conducted conferences and seminars relating to the coordination of medical, legal, and scientific personnel in connection with medical legal problems. *Dr. Neville F. Stanley,* director of epidemiology in the Public Health Service of New South Wales, Australia, spoke on October 18 on "Newer Trends in Poliomyelitis Research." He also gave a series of conferences and seminars on technical aspects of handling poliomyelitis virus in relation to epidemics.

A special seminar on "Advances in Neuro-Pathology" was given on November 9 by *Dr. Webb Haymaker,* neurologist of the Armed Forces Institute of Pathology.

Another out-of-state speaker during October was Dr. Walter J. Meek, emeritus professor of physiology at the University of Wisconsin, who gave a series of lectures and seminars at the Medical Branch. A special seminar on "The Role of Potassium in Cardiac Irregularities" was included in the lectures, as was a discussion for members of the staff on "The Gentle Art of Poisoning."

Dr. R. Anliker, Department of Organic Chemistry, Federal Institute of Technology, Zurich, Switzerland, spoke at the Medical Branch on November 2 on "Synthesis in Vitro and Vivo of Cortisone."

General Elbert DeCoursey, director of the Armed Forces Institute of Pathology, Washington, D. C., spoke on Radiation Injuries on November 3.

EXAMINATION FOR MEDICAL OFFICERS

A competitive examination for appointment of medical officers to the regular corps of the United States Public Health Service will be held throughout the country February 15-17, 1955. Requirements for both assistant and senior assistant surgeon are United States citizenship, the age of at least 21, and graduation from a recognized school of medicine. To be an assistant surgeon, at least seven years of collegiate and professional training and appropriate experience are needed, and for senior assistant surgeon, at least ten years of collegiate and professional training and appropriate experience are needed.

Application forms, which must be completed and returned by January 12, may be obtained from the Chief, Division of Personnel, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D. C.

National Meetings

The sixth *American Congress on Obstetrics and Gynecology* will be held in the Palmer House, Chicago, December 13-17. The meeting is sponsored by the American Committee on Maternal Welfare, Inc., and the American Academy of Obstetrics and Gynecology. Dr. William F. Mengert, Dallas, will be installed as president of the Academy on December 16. The program is designed for physicians, nurses, public health officials, and hospital administrators concerned with mother and baby care; it will consist of approximately thirty papers, twenty-two panels and symposiums, luncheon discussion groups, round-table discussions, and scientific and technical exhibits.

The thirteenth annual meeting of the *American Academy of Dermatology and Syphilology* will be held December 4-9 in the Palmer House. In addition to two new round-table panels added this year, seven special courses will be held the first two days at Northwestern University, the University of Illinois College of Medicine, and at Billings Hospital of the University of Chicago. The courses will include histopathology, mycology, roentgen-ray and radium therapy, bacteriology and virology of the skin, anatomy and embryology, and special problems in dermatohistopathology. Special lectures, symposiums, and scientific and technical exhibits will round out the program.

Practical Electrocardiology Course

A course in Practical Electrocardiology will be given December 6-10 in Houston. Lecturers will be Dr. Demetrio Sodi-Pallares, chief of the Department of Electrocardiology, National Institute of Cardiology, Mexico, D. F., and members of the faculty of the University of Texas Postgraduate School of Medicine and Baylor University College of Medicine. These schools are sponsoring the course in association with the Houston Heart Association, Texas Medical Association, Texas State Department of Health, Houston Society of Internal Medicine, and the Houston Academy of General Practice. All lectures, except on the evening of December 7, will be given in the Auditorium of the M. D. Anderson Hospital, the Tuesday evening one to be given in the Auditorium of the Jesse H. Jones Library.

In addition to Dr. Sodi-Pallares, local faculty will include Drs. Hugh D. Bennett, Edward W. Dennis, E. Ghent Graves, Clifton D. Howe, Abbe A. Ledbetter, Robert G. McConn, Dan G. McNamara, and B. F. Smith, all of Houston. Coordinator is Dr. Sidney Schnur, Houston.

The registration fee of $45 entitles the registrant to attend all or any part of the course. Medical students, interns, residents, and military personnel will be admitted without charge. Formal credit of thirty hours will be given by the American Academy of General Practice.

Doctor Draft

To make certain that enough doctors who have residency training in certain fields are in the armed forces after the expiration of the "Doctor Draft" act next July 1, a new program has been worked out by Dr. Frank Berry, assistant secretary of defense for medical affairs, and the officers assisting him.

A plan called the Armed Forces Reserve Medical Officer Commissioning and Residency Consideration Program has been put in effect; it applies only to interns who have had no prior military service and who therefore have a two year obligation for service under the regular draft.

By October 10, the plan's first deadline, the young physicians were to have sent to the Defense Department a form stating their first, second, and third choices among the services; whether they want additional deferment for residencies, and, if so, choice of hospitals; and their preferred specialties. Any in this group not applying for reserve commissions will be subject to the regular draft, will not be considered for residency deferments, and will not have a choice of services.

Because it is estimated that about half of the interns will want residency deferments and only a quarter can be deferred if the Army, Navy, and Air Force are to get their quotas of physicians, a lottery is being used. Those winning deferments will stay in the reserves and be called up for duty as their specialties are needed after the completion of their residencies. Those losing will be called as needed at the end of their internships. The half not asking for deferments will be allowed a choice of the month to be called up, a privilege not accorded the others.

American College of Surgeons

The American College of Surgeons will have a sectional meeting January 17-19, 1955, at Galveston. The program will consist of early morning hospital clinics and hotel sessions which will include scientific reports, panel discussions, and surgical motion pictures.

Texas doctors on the program other than local physicians will be Drs. Albert W. Hartman, San Antonio; William D. Seybold, John M. Howard, and Luke W. Able, Houston; John R. Cochran, Fort Worth; and Ben J. Wilson, Ernest E. Muirhead, and J. Warner Duckett, Dallas.

Out-of-state speakers include Drs. Frederick A. Coller, Ann Arbor, Mich.; Harry H. McCarthy and Leon S. McGoogan, Omaha, Neb.; Kenneth W. Warren, Boston; Justin J. Stein, and Ian MacDonald, Los Angeles; Robert L. Sanders, Memphis, Tenn.; Jesus Lozoya Solis, Mexico, D. F.; Frank McDowell, St. Louis; William H. Frackelton, Milwaukee; Richard H. Mellen, Colorado Springs; Harry Wilkins, Oklahoma City; William L. Valk, Kansas City; Willis E. Brown, Little Rock; and Conrad G. Collins, New Orleans.

Dr. Robert M. Moore, Galveston, is chairman of the Committee on General Arrangements.

MEDICAL WRITING AND JOURNALISM COURSES

Four year courses in medical journalism and medical writing, which have been approved by the American Medical Writers' Association, have been inaugurated at the Schools of Journalism, University of Oklahoma, University of Illinois, and University of Missouri. The Writers' Association is seeking funds to establish a Visiting Lectureship on Medical Literature for American medical colleges and teaching hospitals and also to augment its Medical Journalism Scholarship Fund for needy students studying in the new four year courses. After students have graduated from one of these courses, medicine and its allied sciences and fields will have people especially trained in medical journalism and writing just as it now has laboratory technicians, health educators, hospital administrators, and other nonmedical graduates.

GP REVIEW

A six day postgraduate course, General Practice Review, will be given at the University of Colorado Medical Center during the week of January 17-22, 1955. Each day a separate area of practice will be presented. Monday, medicine will be reviewed; Tuesday, pediatrics; Wednesday, surgery; Thursday, anesthesiology; Friday, obstetrics and gynecology; and Saturday, trauma.

Hotel reservations will be made through the Office of Graduate and Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, prior to December 20. Those wishing reserva-

tions for evening performances of the Western National Stock Show, which will be held concurrently, may make them through this office also.

ESSAY CONTEST OPENS

The fifteenth annual essay contest of the Mississippi Valley Medical Society, offering a cash prize of $100, a gold medal, and a certificate of award, has been announced. Contestants, who must be residents and citizens of the United States and be members of the American Medical Association, are asked to submit an unpublished essay on any subject of general medical interest and practical value to the general practitioner of medicine (medical economics and education included) by May 1, 1955. The winner will be invited to present his contribution before the twentieth annual meeting of the Society, September 28-30, 1955, at St. Louis.

Dr. Harold Swanberg, secretary, announced that the paper must be submitted in five copies and must not exceed 5,000 words. Additional information can be obtained from Dr. Swanberg, 209-224 W. C. U. Building, Quincy, Ill.

Postgraduate Course in Anatomy

A course in surgical and applied anatomy, which began November 2 and will last through June, 1955, is being given in Houston by the University of Texas Postgraduate School of Medicine and Baylor University College of Medicine.

LIBRARY SECTION

BRONCHOSCOPY

Bronchoscopy has been defined by Jackson and Jackson as "the endoscopic examination and treatment of the tracheobronchial tree and lungs, by means of the bronchoscope used as a speculum." Bronchoscopy is distinctly in the category of an art. The dramatic nature of the operative procedure has been exploited in the daily newspapers to a wide extent; hence the public at large is aware of this procedure.

Gustav Killian, professor of laryngology and rhinology at the University of Frieburg, was the first to show the possibilities of the use of the bronchoscope. In March, 1897, he removed a bone from the trachea of a patient. This led to the exploration of the bronchi, and on July 24, he showed the local medical society that he was able to introduce tubes freely into the air passages.

By his experiments he learned that the bronchi were freely movable, and by turning the patient's head he could explore the right or left ramifications of the bronchi. The lack of knowledge on the part of the medical profession that this was an examination which could be carried out with safety and with minimal discomfort to the patient prevented the use of the bronchoscope for several years.

There are many indications for bronchoscopy other than its special field of usefulness in removing foreign bodies. Bronchoscopy is indicated in any case of pulmonary disease of unexplained origin, the location of tumors, the collection of bronchial secretions for cytologic and bacteriologic study, chronic or persistent cough, carcinoma of the lung, and many other conditions.

The Memorial Library of the Texas Medical Association has purchased a copy of the motion picture film "A Bronchoscopic Clinic" from the Jacques Holinger Memorial Fund and is now making it available to the membership.

BOOKS RECEIVED IN OCTOBER

Alvarez, Walter C.: *Nervousness, Indigestion and Pain,* New York, Harper and Brothers, 1954.

Andrews, George Clinton: *Diseases of the Skin,* ed. 4, Philadelphia, W. B. Saunders, 1954.

Bower, Albert G.: *Diagnosis and Treatment of Acute Phase of Poliomyelitis and Its Complications,* Baltimore, Williams and Wilkins, 1954.

Brown, James Barrett, and McDowell, Frank: *Neck Dissections,* Springfield, Ill., Charles C Thomas, 1954.

Clark, Randolph Lee: *Book of Health—A Medical Encyclopedia,* Houston, Elsevier Press, 1953.

Flitter, Hessel Howard: *An Introduction to Physics in Nursing,* ed. 2, St. Louis, C. V. Mosby, 1954.

Freud, Anna: *The Ego and Mechanisms of Defense,* New York, International Universities Press, 1946.

Gillilan, L. A.: *Clinical Aspects of the Autonomic Nervous System,* Boston, Little, Brown and Company, 1954.

Hopkins, Edward Scott, and Schulze, Wilmer Henry: *The Practice of Sanitation,* ed. 2, Baltimore, Williams and Wilkins, 1954.

Jonas, Karl C.: *Babcock's Principles and Practice of Surgery,* ed. 2, Philadelphia, Lea and Febiger, 1954.

Kauvar, A. J., and Goldner, Martin G.: *Hypoglycemia and the Hypoglycemic Syndrome,* Springfield, Ill., Charles C Thomas, 1954.

McAuley, W. F.: *Concept of Schizophrenia,* New York, Philosophical Library, 1954.

Reddish, George F.: *Antiseptics, Disinfectants, Fungicides, and Chemical and Physical Sterilization,* Philadelphia, Lea and Febiger, 1954.

Russell, Lord: *The Scourge of the Swastika, A Short History of the Nazi War Crimes,* New York, Philosophical Library, 1954.

Sarton, George: *Galen of Pergamon,* Lawrence, Kan., University of Kansas Press, 1954.

Schiff, Leon: *Clinical Approach to Jaundice,* Springfield, Ill., Charles C Thomas, 1954.

Steinberg, Charles LeRoy: *Arthritis and Rheumatism,* New York, Springer, 1954.

Yater, Wallace Mason: *Fundamentals of Internal Medicine,* ed. 4, New York, Appleton Century-Crofts, 1954.

CONTRIBUTIONS TO THE LIBRARY

Grateful acknowledgment is made by the Texas Medical Association Memorial Library for the following recent gifts:

Dr. D. W. Brown, Jr., Fredericksburg, 312 journals.

Dr. Dan B. Hamill, Corsicana, Davis' "Gynecology and Obstetrics."

Dr. D. B. Harmon, Austin, 26 journals.

Dr. J. O. S. Holt, Jr., Dallas, 7 journals.

Dr. J. Edward Johnson, Austin, 3 books, 22 journals, 422 reprints and pamphlets.

Dr. Georgia Legett, Austin, 75 journals.

Mr. Philip R. Overton, Austin, 1 book, 111 journals, 45 reprints and pamphlets.

Dr. N. L. Schiller, Austin, 35 journals, 22 reprints and pamphlets.

Dr. Joseph Selman, Tyler, 1 book.

Dr. C. H. Standifer, Austin, 70 journals.

Terrell's Laboratories, Fort Worth, 2 journals.

MOTION PICTURES FOR LOAN

A Bronchoscopic Clinic

16 mm., silent, color, 33 minutes. Prepared by Drs. Paul H. Holinger, Kenneth C. Johnston, and Frank J. Navak, Ill.

This film portrays the value of and the indications for bronchoscopy in the study of diseases involving the tracheobronchial tree. It clearly and beautifully demonstrates the bronchoscopic appearance of a variety of lesions. A short abstract of the clinical history of each patient, presented in association with roentgenograms of the thorax and the pathologic findings, adds greatly to the teaching value of the film. The technique employed for the performance of intratracheal and intrabronchial photography is demonstrated. The film clearly shows that skill and infinite and painstaking care must have been extended to obtain such excellent photography.

This is a motion picture that should be studied by all physicians interested in diseases of the chest and in bronchoscopy; it should be available to all medical schools for student teaching. It demonstrates visually factors that otherwise are hard to grasp. It is certainly suitable for any type of medical meeting and should be of interest to all physicians. The photography is outstanding.

When You Choose Nursing

16 mm., sound, 20 minutes. Prepared by the Committee on Careers in Nursing; available through courtesy of the Woman's Auxiliary to the Texas Medical Association.

Designed primarily for student nurse recruitment, the film presents four major fields in nursing: pediatrics, education, industry, and public health. Students and graduates are shown at work and play, with several scenes in the nurses' residence.

The film ends with a montage which presents nursing opportunities other than the four portrayed. The narrator says, "No matter which branch you choose, you can be assured of a full, interesting life; the opportunity to alleviate pain and suffering; and to help others when they need you most. A career in nursing is a career with a future. Sometime, somewhere, everyone of us needs a nurse. The nursing profession, now more than ever before, wants qualified young men and women to prepare for a nursing career."

BOOK NOTICES

[1]First Aid and Resuscitation

LT. CARL B. YOUNG, JR., M.P.H., *Instructor, Emergency First Aid, Former Assistant Director, Harris County Emergency Corps, Inc., Houston; Member, International Rescue and First Aid Association, First Lieutenant, Medical Service Corps, U.S.A.R. 338 pages. $8.50. Springfield, Ill., Charles C Thomas, 1954.*

The thoughtfulness of the author in the dedication of this book to fire rescue squads and volunteer life saving organizations is commendable and deserves comment. It is also worthy of note we should be aware of the fine work that is being carried on in Harris County and the Houston area.

In this book the fundamentals of first aid such as control of bleeding, resuscitation measures for those who are not breathing, treatment for those who have taken poison, prevention and treatment of shock, proper care of burns and other wounds, immobilization of fractures and dislocations, care in handling, and proper transportation are all taken up and given their proper discussion.

Other things such as acute heart emergencies, acute indigestion, cerebral vascular accidents, injuries to the air passages and chest wall, acute alcoholism, and acute drug intoxication are treated with practical suggestions for their emergency handling.

In the discussion of the transportation of the seriously ill and injured and emergency ambulance service, the author discusses the advantages of municipally operated ambulance services. He omitted one part which he might have related —some of the sordid conduct of funeral homes who engage in body chasing runs and their reckless handling of patients, which results in fatalities.

The sections on oxygen therapy and the importance of records and statistics being accurate are well done. The chapter urging cooperation of the first aid crews with physicians, police officials, and utility companies is well evaluated and places the medical profession in the proper perspective, but at the same time physicians must reciprocate in the management of the sick and injured.

A well illustrated book, it deals realistically with the subject matter.

[1]*Joe C. Rude, M. D., Austin.*

[2]The Jealous Child

EDWARD PODOLSKY, M. D., *Department of Psychiatry, Kings County Hospital, Brooklyn, N. Y. 147 pages. $3.75. New York, Philosophical Library, 1954.*

This book takes up not only the problem of jealous children but also problems of the lefthanded child, the diabetic child, the obese child, the deaf child, the unwanted child, and the child from divorced parents. It is full of philosophical comments with little practical advice concerning the management of the jealous child.

Menorrhalgia—Menstrual Distress

WILLIAM BICKERS, M. D., *Diplomate, American Board of Obstetrics and Gynecology; Attending Gynecologist to Retreat for Sick, Sheltering Arms, Richmond Community, and Evangeline Booth Hospitals, Richmond, Va. Edited by* E. C. HAMBLEN, B. S., M. D., F.A.C.S., *Professor of Endocrinology and Associate Professor of Obstetrics and Gynecology, Duke University School of Medicine, Durham, N. C. 97 pages. $2.75. Springfield, Ill., Charles C Thomas, 1954.*

This book is an excellent exposition of its subject. The author speaks with authority since he has been interested in menorrhalgia for many years. Each chapter is followed by a list of references. The various forms of treatment are discussed with special emphasis on Dr. Bickers' own.

Oestrogens and Neoplasia

HAROLD BURROWS *and* ERIC S. HORNING *with contributions by* W. C. J. ROSS *and* C. W. SHOPPEE. *189 pages. $6.75. Springfield, Ill., Charles C Thomas, 1952.*

The authors are distinguished pioneers in the field of cancer research. This authoritative review of the scientific literature on the effects of estrogens as a cause of cancer is clearly presented. There are discussions on the effect of estrogens on tumors of the ovary, pituitary glands, testes, adrenal glands, and urogenital organs. The hereditary factors in mammary cancer are discussed, and many charts are presented on the subject. It was not the intention of the authors to have this monograph used as a guide to therapy but as an aid to the interested physician and the research worker. The complex data are skillfully presented. The references are in alphabetical order by author, but the titles have been omitted; there is an excellent index.

[2]*A. L. Exline, Jr., M. D., Austin.*

[3]Doctor at Sea

RICHARD GORDON. *191 pages. $3. First American edition. New York, Harcourt, Brace and Company, 1954.*

This is an amusing book about the adventures of a company physician on a British merchant ship. The young doctor leaves his socialized medical practice in England on the advice of a psychiatrist to avoid an unfortunate marriage. Aboard the Lotus he finds that the crew is suspicious of him because of a long line of alcoholic predecessors. He manages to work around the inadequate medical chest and finds his place among the crew by becoming a relaxed alcoholic. "Doctor at Sea" presents many humorous incidents and makes good light reading.

[4]Practical Electrocardiography

HENRY J. L. MARRIOTT, M. D., *Associate Professor of Medicine, University of Maryland; Assistant Cardiologist, Mercy Hospital, Baltimore. Illustrated by Marcie Ethridge Perry. 171 pages. $5. Baltimore, Williams and Wilkins Company, 1954.*

All of the intricate, uninteresting, and detailed electrophysiology that is usually written in books on electrocardiology have been omitted from this book. It is to be used primarily as a manual and for quick reference for the beginner in electrocardiology.

The summary at the end of each subject matter, given in a clear cut and concise manner, is excellent. These summaries are especially good in the section on cardiac arrhythmias.

Many types of precordial leads are advocated; this may cause the beginner some concern. Using the Wilson V lead for all precordial leads reduces variations in potentials common with these other precordial leads. These variations can become confusing even to the well trained observer.

It is true that the augmented unipolar leads are not essential for the reading of an electrocardiogram. The use of all frontal plane leads, however, makes a better interpretation of the electrocardiogram possible.

The terms "left axis deviation," "right axis deviation," and "ventricular strain" used by the author have lost their meaning in present day electrocardiography.

This is a short, clear cut, and concise manual. It has been presented well and has a place in the library of the beginner in electrocardiography.

[5]The Uncommon Heart Diseases

NATHANIEL E. REICH, M. D., F.A.C.P., F.C.C.P., *Clinical Assistant Professor of Medicine, State University of New York College of Medicine; Associate Attending Physician, Kings County Hospital; Attending Physician in Cardiology, Veterans Administration; Attending Cardiologist, Jewish Sanatorium and Hospital for Chronic Diseases. 516 pages. $10.50. Springfield, Ill., Charles C Thomas, 1954.*

This book constitutes a new and novel approach to this subject. Rich in pathologic physiology of the heart, it has many valuable points. It has a few but well chosen references at the end of each chapter.

Subjects such as the fungus diseases of the heart, barely mentioned in standard texts, are clarified in this book. The collagen disorders are made as clear as they may be made; the study of enzymes and their importance is emphasized. This is a good source of information on the subject of myocarditis.

Being the product of one man makes the book's contents more valuable than if many men had contributed a chapter each. It is a "must" for the library of the cardiologist, internist, or general practitioner.

[3]*A. L. Exline, Jr., M. D., Austin.*
[4]*Lang F. Holland, M. D., Austin.*
[5]*James R. O'Neill, M. D., and Henry N. Leopold, M. D., San Antonio.*

ORGANIZATION SECTION

AMERICAN MEDICAL ASSOCIATION

AMA Clinical Meeting in Miami

The American Medical Association Clinical Meeting will be held in Miami, Fla., November 29-December 2. The House of Delegates will convene Monday, November 29, in the McAllister Hotel; and the scientific meetings and scientific and technical exhibits will be held in the Dinner Key Auditorium.

Scientific programs will be given Monday afternoon, Tuesday and Wednesday mornings and afternoons, and Thursday morning. More than one hundred physicians will present scientific papers or participate in panel discussions. The meeting is directed toward alleviating the everyday medical problems of the physician. Even though specialties of surgery, medicine, obstetrics and gynecology, pediatrics, and neuropsychiatry are represented at the meeting, the program is directed toward the general practitioner who has to face these problems. The opening general assembly will be on Monday morning, at 10:25 o'clock.

Motion pictures will be shown from Monday morning through Thursday noon, as will color television. Programs originating from Miami's Jackson Memorial Hospital will be brought directly into the lecture hall. Leading surgeons and obstetricians will be available at the scientific exhibit for conferences with individual doctors on problems in fracture cases and deliveries. The technical exhibit will have more than one hundred thirty organizations participating.

Registration Bureau will be at the Dinner Key Auditorium, and an information booth will be there also. All those registering early on Monday will have their names and Miami addresses included in the issue of the *Daily Bulletin* appearing the next day, and this will enable visiting physicians to find friends who have registered. Presenting the 1954 American Medical Association membership pocket card will enable members to register without delay. General officers and members of the House of Delegates may register for the Scientific Assembly near the entrance to the Flagler Ballroom in the McAllister Hotel on Monday. They can also register on Saturday, November 27, or Sunday, November 28, in the office of the secretary of the Association, which will be located near the Flagler Ballroom.

Preceding the clinical meeting, Dr. Elmer Hess, President-Elect, will conduct the Association's Seventh National Medical Public Relations Conference. This will begin at 10 a. m. Sunday in the Flagler Ballroom of the McAllister Hotel. The meeting will feature panel discussions on implementation of the AMA's policy on veterans' medical care, on professional management consultants, and of public relations tools and aids available from the Association's Public Relations Department. A special screening of the new television film, "A Life to Save," has been scheduled.

The Woman's Auxiliary to the Dade County Medical Society will maintain a Courtesy Corner in the Columbus Hotel. The auxiliary will give visiting ladies information about places to visit in Miami and has planned one special tour, a cruise to Villa Vizcaya, the palatial estate of the late James Deering, now maintained as a county-operated museum. The auxiliary will arrange other tours if desired.

Invitations from the Jamaica Branch of the British Medical Association and the Medical Association of Haiti have come to encourage members of the AMA attending the conference to visit them after the Miami meeting. The Jamaica association will meet in Kingston, on Saturday, December 4, and will hold a reception in the evening. A meeting of the Haiti association will be held at Port-au-Prince on Saturday, December 4. A special series of social and entertainment events will be planned for those who come to the medical session. Travel information about these can be obtained from the American Express Company in Miami.

Texas physicians appearing on the scientific program include Dr. Alvis E. Greer, Dr. Denton A. Cooley, and Dr. Michael E. DeBakey, Houston; Dr. Charles L. Martin, Dallas; and Dr. Hamilton Ford, Galveston. Four groups of Texans will present scientific exhibits as follows: Drs. Edward W. Dennis, Robert L. Herschberger, John H. Moyer, and Ralph V. Ford, Houston, "The Medical Management of Hypertension"; Drs. DeBakey, Cooley, and Oscar Creech, Jr., Houston, "Aneurysms and Thrombo-Obliterative Disease of the Aorta—Surgical Considerations"; Drs. B. F. Boylston and Roland Carroll, Houston, "Normal and Abnormal Roentgenograms of the Cervical Spine"; and Drs. Gilbert H. Fletcher, Jacob W. Old, and George S. Loquvam, Houston, "A Topographic Approach to the Roentgenologic and Pathologic Examination of Laryngopharyngeal Tumors."

The following five physicians from the Surgical Research Unit of Brooke Army Medical Center, Fort Sam Houston, will also present a scientific exhibit: Drs. Curtis P. Artz, Harry S. Soroff, Alvin W. Bronwell, Eric Reiss, and John H. Davis, on "Treatment of Burns."

Standard Nomenclature Institute

Sponsored for the first time by the American Medical Association will be a three day Standard Nomenclature Institute February 7-9, 1955, at AMA headquarters, Chicago. The short course will offer expert instruction and helpful suggestions on the correct way of utilizing "Standard Nomenclature of Diseases and Operations" in the hospital, doctor's office, or clinic.

The course will be divided into three parts: (1) lectures covering basic principles, construction, and installation plus discussion on the tumor and operation sections and handling of specific problems; (2) anatomy as it pertains to the topographic section; and (3) practice in coding, to be offered at two evening sessions.

With registration limited to 150, application blanks will be distributed after December 1.

DEADLINES FOR JUNE AMA MEETING

The deadline for those planning to participate in the Atlantic City meeting of the American Medical Association, June 6-10, 1955, has been announced by the Council on Scientific Assembly. Deadline for section papers is December 15, 1954, and deadline for scientific exhibits is January 10.

Applicants should communicate with the secretary or the representative to the scientific exhibit of the section in which they are interested. Additional information can be obtained from the secretary, Council on Scientific Assembly, A.M.A., 535 North Dearborn St., Chicago 10.

TEXAS MEDICAL ASSOCIATION

Williston New Executive Secretary

C. Lincoln Williston became executive secretary of the Texas Medical Association on November 1.

Coming to the Association on April 2 as assistant executive secretary, Mr. Williston had been manager of public relations for the University of Illinois Medical Center in Chicago since 1947. He was also chairman of the Medical Schools Section, American College Public Relations Association; lecturer in public relations, Northwestern University; and chairman, Section on Public Relations, Tri-State Hospital Assembly.

C. LINCOLN WILLISTON

He was graduated from the University of Illinois in 1942 with a bachelor of science degree and served as a captain in the United States Air Force on Guam during World War II.

Mr. Williston is married and has two daughters, Christine, 5, and Jayne Ann, 4, and a son, C. Lincoln, who was born last July.

VISITATIONS FOR DECEMBER

Officers and members of the central office staff of the Texas Medical Association will visit the following county medical societies in December: Kimble-Mason-Menard-McCulloch Counties, December 8; Angelina County, December 9; Bexar County, December 14; Hardin-Tyler Counties, December 21; and Comal County, date not determined.

COUNTY SOCIETIES

Cameron-Willacy Counties Society

October 18, 1954

(Reported by Harry A. Miller, Secretary)

Subarachnoid Hemorrhage—Robert C. L. Robertson, Houston.

The Cameron-Willacy Counties Medical Society met on October 18 at Harlingen with eighty-four doctors and guests present. Evan B. Hume, Brownsville, chairman of the tumor clinic committee, reported that attendance is good at the Tumor Clinic, which is held bimonthly. After Howard E. Tewell, Jr., Harlingen, called the x-ray survey of South

Texas counties to the attention of the membership, it was voted to ask the mobile unit to include Willacy County in the tuberculosis survey.

Elected to membership in the society were Hendrik Evart J. Kruisheer, Harlingen, and David W. Flory, Brownsville.

After a discussion about the advisability of having all members of the Cameron-Willacy society listed as such in a specified section of the telephone directory, the problem was referred to the committee on public relations. This committee was to discuss the matter with the telephone company and report its findings at the next meeting.

Lamar County Society

October 7, 1954

(Reported by Harold E. Hunt, Secretary)

Present Medical Treatment of Tuberculosis—H. Frank Carman, Dallas.

The Lamar County Medical Society met in Paris on October 7 with sixteen members and six guests present. After dinner, the above scientific program was held. It was announced that the program for the November 4 meeting would be provided by an officer and a member of the central office staff of the Texas Medical Association.

Lubbock-Crosby Counties Society

September 7, 1954

(Reported by Richard K. O'Loughlin, Secretary)

Problems of Obstetrics and Gynecology in General Practice—Allen T. Stewart, Lubbock.

Discussion—Ewell Hunt, Frank Hudgins, John Selby, and Marie Shaw, Lubbock.

Hemorrhage now exceeds infection and toxemia as the most formidable complication of obstetrics, Allen T. Stewart told members of the Lubbock-Crosby Counties Medical Society when they met September 7 in Lubbock. Dr. Stewart amplified on the physiology of bleeding from the reproductive tract and stressed the importance of early detection of malignancy of the uterus by the general practitioner.

Members of the society were encouraged to donate books for the medical reading room of the new library. They approved classified headings for medical specialists for use in the telephone directory. Dr. Roy Sheffield was appointed representative to attend a meeting of the Welfare Board later in the month.

Potter County Society

September 13, 1954

Injuries Around the Elbow in Children—E. M. Cowart, Houston.

After a three months vacation the Potter County Medical Society met September 13 in Amarillo for a dinner, program, and business session.

A visiting orthopedic surgeon, E. M. Cowart of Houston, presented a scientific paper, after which the society unanimously voted to invite the Negro doctors of Amarillo to attend its regular meetings and dinner; accepted a report from the Citizens Committee on Health, Recreation and Welfare Service of Amarillo; heard four proposed amendments to the constitution and by-laws; and acted on several membership matters.

Visitors from the staff of the Amarillo Air Force Base hospital and from Panhandle were present.

Tarrant County Society

September 21, 1954

(Reported by S. W. Wilson, Secretary)

Clinical-Pathological Conference—Robert Mitchell, Fort Worth, Moderator.

Discussion of the Case—DeWitt Neighbors, T. H. Thomason, and Robert Moreton, Fort Worth.

Pathological Findings—John Wallace, Fort Worth.

Organization of a softball team to play the Fort Worth Amputee Club during National Employ the Physically Handicapped Week, October 3-9, was begun at the September 21 meeting of the Tarrant County Medical Society. In answer to a letter from the Amputee Club's president challenging the physicians to a game, Robert Stow and Louis Levy were named to organize a team.

Four physicians were elected to membership upon application; four on transfer.

Seventy-four members and three visitors heard the program outlined.

October 5, 1954

(Reported by S. W. Wilson, Secretary)

Venous Diseases—Leroy J. Kleinsasser, Dallas.

The Tarrant County Medical Society met in Fort Worth on October 5 and heard the above scientific program. Ernest E. Anthony, Jr., Fort Worth, reported for the legislative committee on social security, and a resolution requesting repeal of Section 106 of Public Law 761 was adopted.

Elected to membership in the society were M. W. Brous, Harold R. High, Joanne Kenner, James R. McKinney, and Charles A. Rush, Jr.

Tom Green-Eight County Society

October 4, 1954

(Reported by Joe L. Cornelison, Secretary)

Chest Pain—Julian H. Acker, Wichita Falls.

The Tom Green-Eight County Medical Society met October 4 in San Angelo. After a short business meeting, the above scientific paper was heard.

DISTRICT SOCIETIES

Fourth District Society

October 21, 1954

(Reported by James N. White, Secretary)

Abdominal Tumors in Childhood—Luke W. Able, Houston.

Surgical Emergencies of Newborn—Dr. Able.

Roentgen-Ray Diagnosis of Urologic Conditions—Palmer E. Wigby, Houston.

Roentgen-Ray Diagnosis of Nonmalignant Diseases of Chest—Dr. Wigby.

Management of Rh Patient—Warren M. Jacobs, Houston.

Indications for Hysterectomy, Vaginal and Abdominal—Dr. Jacobs.

Sexual Precocity and Retardation—Mavis P. Kelsey, Houston.

Management of Thyroid Tumors—Dr. Kelsey.

The Fourth District Medical Society met October 21 in San Angelo and heard the program as outlined above. The group also heard a speech by F. J. L. Blasingame, Wharton, President of the Texas Medical Association, at a luncheon attended by one hundred. Mr. C. Lincoln Williston, assistant executive secretary of the state organization, gave a resumé of the activities and plans of the central office in regard to district and county meetings. Other visitors present for the luncheon were Mrs. Joseph H. McCracken, Jr., Dallas, President-Elect of the Woman's Auxiliary to the Texas Medical Association; Mrs. A. B. Pumphrey, Fort Worth, chairman of the Auxiliary Committee on Mental Health; Mrs. Oscar N. Mayo, Brownwood, council woman for the Fourth District; Mrs. Arleen Draker, Austin, Auxiliary executive secretary; Mrs. Cecil M. French, San Angelo, president of Tom Green-Eight County Auxiliary; and Mrs. Perry J. C. Byars, San Angelo, chairman of the State Auxiliary's Essay Contest Committee.

Newly elected officers are James N. White, San Angelo, president; Oscar N. Mayo, Brownwood, vice-president; and Joe B. Stephens, Bangs, secretary. Oran H. Chandler, Ballinger, was nominated for councilor for 1955.

The program was put on by the University of Texas Postgraduate School of Medicine.

AUXILIARY SECTION

EXECUTIVE BOARD MEETING

The Executive Board of the Woman's Auxiliary to the Texas Medical Association met in the Sam Thompson Room of the Texas Medical Association headquarters building, Austin, at 1 p. m., Wednesday, September 22, 1954, with the President, Mrs. Mark H. Latimer, Houston, presiding.

Mrs. P. R. Denman, Houston, Chaplain, gave the invocation and a short devotional on prayer. The group repeated the Auxiliary pledge in unison.

Mrs. Latimer greeted those present and introduced Mrs. S. W. Bohls, Austin, president of the Woman's Auxiliary to the Travis County Medical Society, who welcomed members and guests to Austin. She introduced Mrs. G. G. Zedler, Austin, president-elect of the Travis County Auxiliary and local arrangements chairman for the meeting. Mrs. O. M. Marchman, Dallas, responded.

Mrs. G. V. Brindley, Temple, introduced the past state presidents attending the meeting. These included Mesdames Brindley; E. W. Coyle, San Antonio; P. R. Denman, Houston; Joseph B. Foster, Houston; S. M. Hill, Dallas; F. F. Kirby, Waco; O. M. Marchman, Dallas; A. B. Pumphrey, Fort Worth; and O. W. Robinson, Paris. Mrs. Brindley then presented the state committee members, county presidents and presidents-elect, and other visitors.

Mrs. John H. Wootters, Houston, moved that notes be sent to those past state presidents unable to be present. The motion was carried.

In the absence of Mrs. William M. Palm, Houston, Corresponding Secretary, Mrs. Arleen Draker, Austin, Executive Secretary, announced that letters or telegrams had been received from several members who could not be present. A letter from Mrs. George Turner, El Paso, expressed her thanks for the $101 gift to the American Medical Education Foundation given in her honor by the Texas Auxiliary when she was installed as President of the Woman's Auxiliary to the American Medical Association and for the courtesies extended her.

Mrs. J. Guy Jones, Dallas, moved that a telegram regretting Mrs. Turner's absence be sent to her, and the motion was carried.

Mrs. Latimer expressed regret that Dr. F. J. L. Blasingame, Wharton, President of the Texas Medical Association, could not be present. Mrs. F. Paul Burow, Killeen, moved that a cablegram of greetings be sent Dr. Blasingame, who was in Rome, Italy, attending a meeting of the World Medical Association. The motion passed.

The President then called for reports and recommendations from the state officers, committee chairmen, and council women. In place of a formal report, Mrs. Latimer referred members to her column which appears in each issue of the *News Letter* and reiterated her intention of trying to meet personally with as many county auxiliaries as possible during the year. She asked that these meetings be kept simple and said she hoped the smaller groups would adopt at least one project in which to engage and thereby become a vital force in the community for the betterment of health.

Officers of the Woman's Auxiliary to the Texas Medical Association: President, Mrs. Mark H. Latimer, Houston; President-Elect, Mrs. Joseph H. McCracken, Jr., Dallas; First Vice-President, Mrs. Mal Rumph, Fort Worth; Second Vice-Presidents, Mrs. Harold Lindley, Pecos; Third Vice-President, Mrs. Howard R. Dudgeon, Jr., Waco; Fourth Vice-President, Mrs. Troy A. Shafer, Harlingen; Fifth Vice-President, Mrs. August J. Streit, Amarillo; Recording Secretary, Mrs. P. M. Kuykendall, Ranger; Corresponding Secretary, Mrs. William M. Palm, Houston; Treasurer, Mrs. J. C. Terrell, Stephenville; Publicity Secretary, Mrs. A. H. Neighbors, Jr., Austin; Parliamentarian, Mrs. John E. Hill, Marshall.

Mrs. Joseph H. McCracken, Jr., Dallas, President-Elect, expressed her appreciation for having been sent to the national convention in San Francisco. She gave a brief resumé of the meeting and announced that Mrs. Mason G. Lawson, Little Rock, who was endorsed by the Texas Auxiliary at its Executive Board meeting in San Antonio on May 5 for the nomination as President-Elect of the National Auxiliary, had been elected to that office.

Reports were given by Mrs. Mal Rumph, Fort Worth, First Vice-President, and chairman of the Organization and Membership Committee; Mrs. Harold Lindley, Pecos, Second Vice-President; Mrs. Howard R. Dudgeon, Jr., Waco, Third Vice-President; and Mrs. Troy A. Shafer, Harlingen, Fourth Vice-President.

Mrs. J. C. Terrell, Stephenville, Treasurer, reported a State Auxiliary membership of 4,761 and a balance on hand of $18,563.94. She requested that all contributions to the Auxiliary's philanthropic funds—American Medical Education Foundation, Library, Memorial, and Student Loan —be sent directly to the chairmen of these funds. January 15 to March 1, 1955, were the dates announced for payment of annual state dues.

Other officers reporting were Mrs. P. M. Kuykendall, Ranger, Recording Secretary; Mrs. A. H. Neighbors, Jr., Austin, Publicity Secretary; and Mrs. John E. Hill, Marshall, Parliamentarian.

Mrs. Joseph B. Foster, Houston, chairman of the Advisory Committee, announced her committee had been asked to review the custom of annually awarding blue ribbons to county auxiliaries for work done in certain fields. She stated the committee agreed that some adjustment should be made —either by doing away entirely with awards or by making only ones which could be decided on the basis of statistics. If awards are to be continued, the committee felt that a more effective plan for their distribution could be worked out. Mrs. Foster moved that the Board consider the problem of awards and that the Historical Committee and President be empowered to study the problem further and act accordingly. The motion was carried.

Mrs. J. V. Blair, Corpus Christi, Civil Defense chairman, announced Mrs. Grace M. Martin, College Station, State Coordinator of Women's Activities in Defense and Disaster Relief, was attending the Board meeting as her guest.

Upon motion by Mrs. John H. Wootters, Houston, chairman of the Historical Committee, the Board authorized the purchase of uniform filing binders and directed this committee to place the materials presently in the past presidents' books in the archives in these binders because the binders used heretofore have been too large to permit satisfactory filing. The Board also passed Mrs. Wootters' motion to have the Historical Committee select and purchase a binder and present it to the president each year.

In the absence of Mrs. Jacob F. Schultz, Houston, Mental Health chairman, the committee report was read by Mrs. A. B. Pumphrey of Fort Worth, co-chairman. Following the reading of this report, Mrs. Pumphrey called the Board's attention to some projects suggested for Auxiliary members and incorporated in the material being sent out by the mental health chairman of the National Auxiliary. A discussion of these suggestions followed. Mrs. Guy E. Knolle, Houston, moved that the Board leave it up to the discretion of the local groups as to which material is used. The motion was carried.

Mrs. William D. Nicholson, Freeport, Nurse Recruitment chairman, presented a draft of a proposed manual for members of Future Nurses Clubs in Texas. She recommended

that the Auxiliary publish and distribute the proposed manual, which was written with the help of the State Committee on Careers in Nursing. The recommendation was approved. It was voted also to print and distribute to Texas high schools a brochure on nursing schools in Texas which previously had been compiled and distributed by the State Committee on Careers in Nursing.

Mrs. Guy E. Knolle, Houston, Program Chairman, introduced Miss Pauline Duffield, Austin, librarian for the Memorial Library of the Texas Medical Association, who stated that the use of films available from the Library has increased because of requests by Auxiliary members.

Mrs. Knolle moved that the Auxiliary purchase two or three films, after they have been previewed and passed on by the Program Committee, total cost not to exceed $250. The motion was carried. Also upon a motion by Mrs. Knolle, the Board voted to adopt a resolution favoring "A Family Doctor for Every Doctor's Family" and to send copies of the resolution to the Woman's Auxiliary to the American Medical Association and the American Academy of General Practice.

Mrs. Milton Spark, Waco, *Today's Health* chairman, recommended that the Auxiliary send subscriptions of *Today's Health* to the two United States Senators and the Governor and Lieutenant Governor of Texas. This was approved. Mrs. Spark announced that any organized county auxiliary in Texas which is able to get renewals from unorganized areas will receive credit for these renewals. She suggested the Finance Committee follow the recommendations of the past year's chairman when allocating funds for this committee's work.

Mrs. Ridings E. Lee, Dallas, Public Relations chairman, displayed a foldertype mailing piece being distributed by the National Auxiliary and giving county auxiliary objectives, the Auxiliary pledge, and a brief history of the Auxiliary and its program and projects. The Board approved Mrs. Lee's motion that enough money be voted to have orientation folders similar to the one shown printed for the State Auxiliary membership.

Mrs. Ramsay H. Moore, Dallas, reporting for the Revisions Committee in the absence of Mrs. T. H. Thomason, Fort Worth, chairman, recommended that the Board vote to have the newly revised By-Laws put into printed booklet form. This recommendation was approved.

Other committee chairmen reporting were Mrs. V. M. Longmire, Temple, Finance; Mrs. F. Paul Burow, Killeen, Legislation; Mrs. E. W. Coyle, San Antonio, Nominating; Mrs. J. L. Jinkins, Galveston, American Medical Education Foundation; Mrs. Allan Shields, Victoria, Library Fund; Mrs. J. Guy Jones, Dallas, Memorial Fund; Mrs. Charles V. Bintliff, Texarkana, *Bulletin;* Mrs. Haskell Hatfield, El Paso, *News Letter;* Mrs. Lynn Hilbun, Henderson, Reference; and Mrs. R. C. Bellamy, Liberty, Workshop. Mrs. Edward T. Smith, Houston, read the report of the Student Loan Fund Committee in the absence of Mrs. J. Charles Dickson, Houston, chairman. The report of the Essay Contest Committee as filed by Mrs. Perry J. C. Byars of San Angelo, chairman, was read in her absence by Mrs. Draker.

The following council women gave reports: Mrs. William C. Barksdale, Borger, District 3; Mrs. Andrew J. Magliolo, Dickinson, District 8; Mrs. C. M. Hansen, Navasota, District 9; Mrs. C. H. Stripling, Jacksonville, District 11; Mrs. W. Frank Armstrong, Fort Worth, District 13; Mrs. Emmett Essin, Sherman, District 14; and Mrs. Charles J. Wise, Naples, District 15.

Mrs. Latimer asked the Board to act upon the letter of resignation which had been received from Mrs. Scott C. Applewhite, San Antonio, member of the Revisions Committee. The Board voted to accept with regret Mrs. Applewhite's resignation.

Mrs. Longmire, reporting on recommendations of the Finance Committee, moved that funds be set aside for revising the State Auxiliary handbook and for the purchase of two wrought iron flower stands to be presented as a gift to the Texas Medical Association for the Sam Thompson Room. The motion was carried.

Mrs. Rumph read the report of the Courtesy Resolutions Committee in the absence of Mrs. Cecil O. Patterson, Dallas, chairman. The report expressed appreciation and thanks to Mrs. Mark H. Latimer, President; Mrs. S. W. Bohls, president of the Travis County Auxiliary; Mrs. G. G. Zedler, president-elect of the Travis County Auxiliary and chairman of the local arrangements committee; Mrs. R. C. Bellamy, Workshop chairman; N. C. Forrester, Executive Secretary of the Texas Medical Association and other members of the central office staff, particularly Mrs. Arleen Draker, Executive Secretary of the Auxiliary; and to the firm of Syers-Pickle & Winn, public relations counsel for the Association.

Mrs. Rumph moved the adoption of the committee's report, and the motion was carried.

Mrs. Latimer announced that the Southern Medical Auxiliary's annual convention will be November 8-11 in St. Louis. The Texas Auxiliary will be represented at the meeting by Mrs. McCracken.

After hearing other announcements, the President declared the meeting adjourned.

On Wednesday evening, September 22, Executive Board members boarded the Riverboat Commodore for a 10 mile ride up Lake Austin to the Greenshores Picnic Grounds, where a barbecued chicken supper was served.

On Thursday, September 23, Mrs. R. C. Bellamy, Liberty, conducted the Workshop for County Presidents and Presidents-Elect. Following the opening invocation, panel discussions on organization, program, public relations, philanthropic funds, and publications were held, with approximately thirty-five members taking part. N. C. Forrester, Executive Secretary of the Texas Medical Association, was introduced and in turn presented the central office staff members, describing the job of each. At noon a buffet luncheon was served in the Association building. Staff members were the guests of Mrs. Latimer at this luncheon.

Following the luncheon, motion picture films were shown. Guest speaker for the afternoon session was John H. Lane, Jr., field representative for the Texas Society for Mental Health, who spoke on "The Epidemic Nobody Talks About."

Approximately ninety-five attended the two day meeting in Austin.

MRS. P. M. KUYKENDALL, Ranger,
Recording Secretary.

WOMAN'S AUXILIARY CONFERENCE IN CHICAGO

The eleventh annual Conference of State Presidents, Presidents-Elect, and National Committee Chairmen of the Woman's Auxiliary to the American Medical Association is being held November 16-18 in Chicago. Mrs. Mark H. Latimer, Houston, President of the Woman's Auxiliary to the Texas Medical Association, and Mrs. Joseph H. McCracken, Jr., Dallas, President-Elect, are official delegates from Texas. Theme of the conference, which expected to draw about 200 state representatives and national leaders, is leadership in community health.

The program consists of panels on organization, legislation, program, publications, *Today's Health,* public relations, mental health, nurse recruitment, and Auxiliary finances, and a talk on the World Medical Association.

MRS. TURNER GOES TO EUROPE FOR CONFERENCE

Mrs. George Turner, El Paso, President of the Woman's Auxiliary to the American Medical Association, was one of

the seventy-six persons chosen to be a guest of the American Heritage Foundation to join an inspection tour of Radio Free Europe. In the interest of its Crusade for Freedom project, the foundation selected presidents or representatives of leading national organizations to be its guests on the tour and for conferences in Munich, Berlin, and Paris. The party flew from New York on October 20 and returned October 29.

COUNTY AUXILIARIES

The *Dallas County Auxiliary* sponsored a Nurse Recruitment Week the first week in September. To call attention to the importance and advantages of the nursing profession, television programs, posters, and store window displays were used during the week. Almost every high school in the county will have an auxiliary-sponsored future nurses club this year.

An art show with works done by members and their families featured the first meeting of the season held by *Tarrant County Auxiliary*. The show was in connection with a luncheon October 8 in Fort Worth at which a local artist, Mrs. Thelma Park, demonstrated several art media.

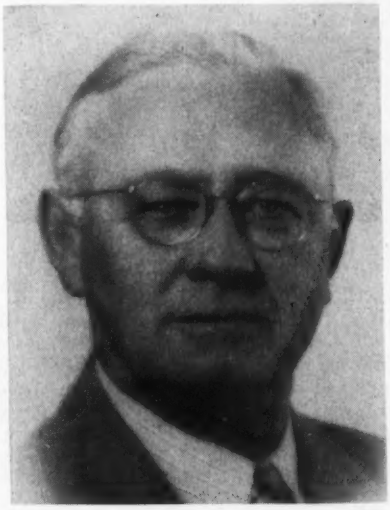
The *Navarro County Auxiliary* heard a review of the history of the Woman's Auxiliary to the American Medical Association by Mrs. Dan B. Hamill when it met September 3 in the home of Mrs. A. L. Grizzaffi, Corsicana. "The Patient's Watchdog," an article from *Today's Health*, was reviewed for the group by Mrs. Paul H. Mitchell October 1 at the home of Mrs. G. H. Sanders, Kerens. Committee reports were heard at both meetings, and attention was called to radio and television shows of special interest to auxiliary members.

DEATHS

W. J. McCREIGHT

Dr. William Joseph McCreight died in Anson, Texas, on August 17, 1954, from cancer of the lung.

Dr. McCreight, born November 29, 1888, in Stephens County, was the son of Joseph Samuel McCreight and Jane Elizabeth (Sharman) McCreight. Receiving his medical degree from the old Southern Methodist University Medical Department, Dallas, in 1914, Dr. McCreight interned at Parkland Hospital, Dallas. He practiced in Anson from



DR. W. J. McCREIGHT

that time until his death with the exception of his military service. Dr. McCreight served during World War I from January, 1918, to May, 1919, as a first lieutenant in the Army Medical Corps in France and with the Army of Occupation in Germany.

A member of the American and Texas Medical Associations almost continuously since 1916 through Taylor-Jones Counties Medical Society, Dr. McCreight served as president of his county society in 1930-1931. He was a member of the Southern Medical Association and was elected an honorary member of the Texas Medical Association in 1953. Dr. McCreight had served several times as city and county health officer and was county health officer at the time of his death. He was a member of the Masonic Lodge and the Baptist Church. Examining physician for Jones County local selective service board during World War II, Dr. McCreight was recognized with a certificate from the President of the United States for his work in that capacity.

Dr. McCreight and Mrs. Annie Hale King were married on June 21, 1915, in Anson. Surviving are his wife; three sons, W. J. McCreight, Jr., Abilene; Dr. Henry H. McCreight, Winters; and Charles T. McCreight, Lubbock; a step-daughter, Mrs. John L. McQuigg, Birmingham, Mich.; three brothers, Lloyd McCreight, Comanche, Okla.; Sherman McCreight, Oklahoma City; and Sidney McCreight, Duncan, Okla.; two sisters, Mrs. Mintie Clayton, San Francisco, and Mrs. Nell Holden, San Antonio; and eight grandchildren.

L. F. TAYLOR

Dr. Lafayette F. Taylor, Haskell, Texas, died July 7, 1954, at his home after an illness of more than two years.

Born May 12, 1873, in Denton County, Texas, Dr. Taylor was one of eight sons of a Baptist minister, the Rev. John J. Taylor, and Mrs. Taylor, three of whom became ministers and four doctors. He was graduated in 1894 from Memphis Hospital Medical College, now the University of Tennessee College of Medicine. After practicing in Pendletonville for three years, Troy for three years, and Eldorado for five years and also in Ozona and Hereford, Dr. Taylor moved in 1909 to Haskell, where he practiced until 1951, when he had a stroke and was confined to his bed. In 1952 the doctor was honored with the presentation of a Golden T Award from his medical school for more than fifty years of active practice.

A member of the Texas and American Medical Associations first in 1908 through the Randall-Deaf Smith-Parmer-Castro-Oldham Counties Medical Society and more recently through the Baylor-Knox-Haskell Counties Medical Society, Dr. Taylor had served as city-county health officer of Deaf Smith and Hereford Counties. He had helped organize the Haskell County Hospital and served on its staff for many years. He was on the school board at Haskell and on the board of directors of the Haskell National Bank. He be-

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

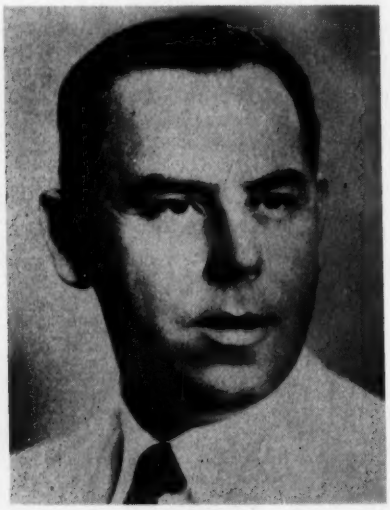
longed to Woodmen of the World Lodge and was a deacon of the First Baptist Church, Haskell.

Dr. Taylor and his wife, the former Miss Edna Pearl Bernero of Cedar View, Miss., whom he married on June 5, 1899, were among the first settlers of Bailey County, living on a ranch, and one of their sons was the first child born in the county. Mrs. Taylor preceded her husband in death in 1950. Dr. Taylor's survivors include two sons, Dr. Floyd Taylor and Bailey F. Taylor, both of Abilene; six daughters, Mrs. Richard E. Sherrill, Pittsburgh, Pa.; Mrs. T. M. French, Austin; Miss May Bell Taylor, a Baptist Missionary to Brazil but in Haskell on leave since 1951; Mrs. Edwin Fisher, Longview; and Mrs. G. H. Henshaw and Mrs. W. H. Carrothers, both of Abilene; twelve grandchildren; and five great-grandchildren. He is also survived by one sister, Mrs. Sam Williams, Scottsdale, Ariz., and three brothers, the Rev. Sam D. Taylor, San Saba; the Rev. W. W. Taylor, Phoenix, Ariz.; and the Rev. Gordon Taylor, Burnet.

J. D. WILLIAMSON

Dr. James Dorsey Williamson died on September 2, 1954, at his home in Castroville, Texas, of coronary occlusion.

Born in Learned, Miss., on March 13, 1912, Dr. Williamson was the son of Dr. and Mrs. R. D. Williamson. Dr. Williamson attended public schools in Castroville; Texas Military Institute, San Antonio; and the University of Texas, Austin, before entering the University of Arkansas School of Medicine, Little Rock, from which he was graduated in



DR. J. D. WILLIAMSON

1938. He interned at Santa Rosa Hospital, San Antonio, until 1939, when he organized the Castroville Clinic and Hospital. Dr. Williamson ran the clinic until the time of his death.

A member of the Texas and American Medical Associations continuously since 1942 through Medina-Uvalde-Maverick-Val Verde-Edwards-Real-Kinney-Terrell-Zavala Counties Medical Society, Dr. Williamson was secretary of his county society in 1949 and president in 1950 and had served as delegate. He was past president of the Bexar County chapter of the Heart Association; was a member of the Texas Academy of General Practice, Private Clinics and Hospitals Association of Texas, and Texas Hospital Association; and was health officer for Castroville. He had served on the staff of the Santa Rosa Hospital for sixteen years. Dr. Williamson was a member of the Travis Park Methodist Church, San Antonio. His main hobbies were fishing and swimming.

The former Miss Dorothy Mae Yerger and Dr. Williamson were married in Little Rock on June 6, 1939. She survives, as do two daughters, Dorothy Anne and Mary Louise Williamson; and one son, James Robert Williamson, all of Castroville, and one brother, Robert Edward Williamson, Little Rock.

S. A. KING

Dr. Stephen Allen King, Karnes City, Texas, died on July 13, 1954, in a San Marcos hospital of apoplexy after an illness of a year.

Dr. King, the son of H. P. and Emma (Bryan) King, was born in Shelby County on February 2, 1868. He attended the old Coronal Institute, San Marcos, and was

S. A. KING

graduated from the Hospital College of Medicine, Louisville, Ky., in 1890. He began practicing in Centerville, and in 1895 he moved to Karnes City, where he was a general practitioner until his retirement in 1953.

An early member of the Texas Medical Association, Dr. King held membership in that organization for approximately fifty years. He was also a member of the American Medical Association and the Karnes-Wilson Counties Medical Society, having served as president of the county society in 1940. County health officer for twelve years, he was active in civic and church work, being a member of the Baptist Church. In November, 1948, the citizens of Karnes City honored him and his wife with a "Dr. and Mrs. King Day" in recognition of their service to the community and of his more than fifty years of practice in Karnes City.

In 1897 Dr. King married the former Miss Bennie Makamson of Leona. She died in 1949. He is survived by a son, Dr. Allen D. King, Wilmington, Del.; two grandchildren, Miss Ernestine Loeffler King and Allen D. King, II, also of Wilmington; a brother, Henry P. King, San Marcos; and five sisters, Mrs. Annie Kennard, Miss Ola King, and Miss Sara King, all of San Marcos; Mrs. W. B. Taylor, Shawnee, Okla.; and Mrs. G. R. Cox, Bryan.